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ABSTRACT

The Comprehensive Career Education Model (CCEM) is a systematic effort to design and implement a new educational strategy that will ensure that students will be prepared either for immediate employment or continuing education upon leaving school. The CCEM seeks to restructure curriculum at all grade levels in terms of knowledge of career and human development. The model matrix developed is an operational tool providing means for defining, evaluating, and refining context, guidance activities, and other support services associated with career education based on authoritatively derived concepts regarding self, culture, and career. Four critical concepts inherent in the matrix are the eight elements of career education, the cumulative effort of sequencing learning experiences, the unifying of academic and vocational curriculum through career education, and the fragmentability of career education into manageable parts. Two conferences held in March and June 1973 by the Institute for Educational Development critically reviewed the developmental program goals from an intellectual and a utilitarian viewpoint. Their reports are given in the supplemental review. (MS)

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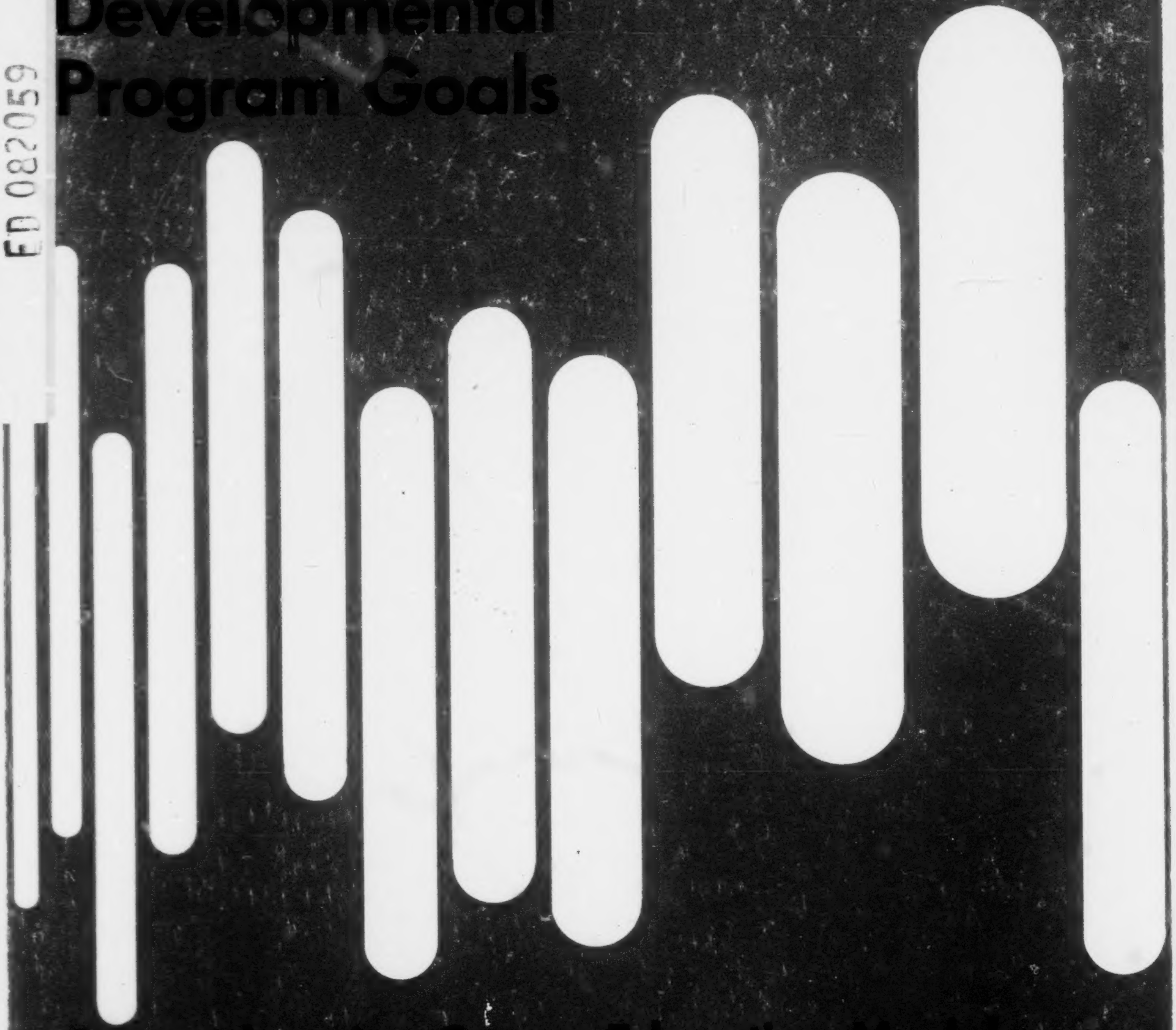
Developmental Program Goals



Comprehensive Career Education Model

August 1973

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DEVELOPMENTAL PROGRAM GOALS
FOR THE
COMPREHENSIVE CAREER EDUCATION MODEL

PRELIMINARY EDITION

THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION
THE OHIO STATE UNIVERSITY

AUGUST 1972

VOID

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FOREWORD

The Center for Vocational and Technical Education, The Ohio State University wishes to thank Westinghouse Learning Corporation for the technical assistance and editorial help in the preparation of this document. The Center wishes to acknowledge the efforts of the hundreds of people who participated in formulating Developmental Program Goals for the Comprehensive Career Education Model. Their names are listed alphabetically in Appendix A. To them belong credit and satisfaction in the confidence that their work will result in better educational programs for the young people of America. This product cannot be termed as being final or even complete, but represents a positive step forward.

This document was prepared by The Center for Vocational and Technical Education, The Ohio State University, 1900 Kenny Road, Columbus, Ohio 43210, in a joint working relationship with Westinghouse Learning Corporation, 2680 Hanover Street, Palo Alto, California 94304. The Center for Vocational and Technical Education and Westinghouse Learning Corporation have made every attempt to ensure the accuracy of the information contained in this report.

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INTRODUCTION

The School-Based Comprehensive Career Education Model (CCEM) is one of four models being initiated and supported by the U.S. Office of Education. The CCEM is a systematic effort to design and implement a new educational strategy that will ensure that upon leaving school students will be prepared for career pursuit whether it involves direct employment or continuing education. This includes enabling every student to understand and feel that he is a participant in society, as well as to select, prepare, and pursue a career plan compatible with his abilities and goals. This career plan should prepare him to understand the relatedness of in and out-of-school learning experiences to career roles performed for individual and social maintenance.

The CCEM seeks to restructure curriculum in terms of knowledge of career and human development. Because basic attitudes and competencies begin to develop at an early age and are modified over time, use of the model encompasses all grade levels. Use of the model will require extensive cooperative involvement on the part of the community, parents, and students and will stress the placement of every departing student in either an entry-level job or in the next step of educational preparation.

The primary objective of this report is to present an interim document prepared by The Center for Vocational and Technical Education and cooperating local education agencies entitled Developmental Program Goals for the Comprehensive Career Education Model. The Matrix referred to herein is a set of elements, themes, and goal statements giving direction to the development of the CCEM.

This document is a preliminary edition of the Comprehensive Career Education Model Matrix, which will be further refined as time, experience, and resources permit. It is intended to be used by educators and others interested or involved in the development of career education.

SECTION I. THE COMPREHENSIVE CAREER EDUCATION MODEL--MATRIX DEVELOPMENT

A. THE OVERVIEW

The Comprehensive Career Education Model Matrix (Matrix) is being developed as part of the endeavor to design a Comprehensive Career Educational Model (CCEM) that will make it possible to infuse career education into all levels and aspects of the school curriculum. It is an operational tool providing a means for defining, evaluating, and refining content, guidance activities, and other support services associated with career education.

The rationale behind the Matrix is based on authoritatively derived concepts which provide a broad base for defining career education. A theoretical base is emerging from an integration of authoritative concepts regarding self, culture, and career. The rationale and theoretical base of the Matrix recognize career development as a long-range, gradual process essentially involving growth in self-understanding in relation to one's society and knowledge of work.

Four critical concepts are inherent in the Matrix: the eight elements, the cumulative effort of sequencing learning experiences, the unifying of academic and vocational curriculum through career education, and that the whole of career education can be broken down into manageable parts.

Matrix development milestones provide an historical overview.

June 15, 1971:	Initiation of the CCEM project.
July 1971:	Identification of the eight elements that encompass career education.
September 1971:	Inclusion of the six LEAs in development activities.
October to December 1971:	Formulation of the themes and goal statements.
February 1972	Start of the selection and development of curriculum units.

Development of the Matrix has been a joint effort on the part of the CCEM staff and personnel from the six participating Local Educational Agencies listed below:

Atlanta Public Schools
Atlanta, Georgia

Hackensack Public Schools
Hackensack, New Jersey

Jefferson County Public Schools
Jefferson County, Colorado

Los Angeles City Schools
Los Angeles, California

Mesa Public Schools
Mesa, Arizona

School District of the City of Pontiac
Pontiac, Michigan

The Matrix is being used to select, develop, and articulate curriculum and guidance units.

The present level of validation of the Matrix has been accomplished largely through consensus and expert opinion. Further validation will be based on criteria that place the highest value on providing students with the understandings and experiences necessary to manage more effectively the transition from school into society. The focus will be on the degree to which the CCEM assists every student to understand career roles, the relatedness of learning experiences to real life, and to achieve placement in a job or higher education program.

SECTION I. THE COMPREHENSIVE CAREER EDUCATION MODEL--MATRIX DEVELOPMENT

B. THE DESCRIPTION

BACKGROUND

The Comprehensive Career Education Model Matrix (Matrix) represents one aspect of the Comprehensive Career Education Model (CCEM) designed to infuse career education into all aspects of the school curriculum. Restructuring education around a developmental theory stressing relevance to real-life situations requires a sufficiently detailed framework for constructing career education curriculum. In order to select curriculum components a reference is needed to ascertain whether attention has been given to the units that should be selected or modified for each grade level and to provide assurance that development of the career education program is comprehensive and soundly based. The Matrix is fulfilling the need for considering and evaluating the content of career education.

Furthermore, the requirements of the CCEM dictated that a transportable career education model be developed providing an operational definition of career education. The Matrix substantially approaches this requirement. It provides a framework for coordinating the efforts of groups participating in the development of the CCEM.

PURPOSE

The Matrix was developed as an operational tool capable of providing a frame of reference for defining and evaluating curriculum and guidance units necessary for the delivery of career education. It interactively links the goals of career education with the curricular structure of schools, providing a means of unifying subject matter content with career development theory.

Additionally, the Matrix provides a means for articulating effort among Local Education Agencies (LEAs) and facilitates integration of the CCEM with current LEA programs. It also provides criteria for identifying existing LEA curriculum and guidance units and the subsequent national search for career education instructional units. The results of this search have facilitated the identification and development of curriculum units.

The overall goals of the Matrix are directed toward the continuous development of each student. By means of the Matrix, goal statements have been progressively sequenced starting with career awareness through career exploration to career preparation. This progression is illustrated in Figure 1.

RATIONALE

In developing a detailed conceptualization of career education, it was considered imperative to identify the developmental concepts that would provide for a clear understanding of the career education process. The following statements define the areas encompassing the whole of career education:

1. It is essential that each person know himself and develop a personal value system.
2. It is essential that each person perceive the relationship between education and life roles.
3. It is essential that each person acquire knowledge of the wide range of careers.
4. It is essential that each person be able to perceive processes in production, distribution, and consumption relative to his economic environment.
5. It is essential that each person be able to use information in determining alternatives and reaching decisions.
6. It is essential that each person acquire and develop skills which are viewed as the ways in which man extends his behavior.
7. It is essential that each person develop social and communication skills appropriate to career placement and adjustment.
8. It is essential that each person develop appropriate feelings toward self and others.

In turn, the key concepts provide the bases for the eight elements of career education which comprise a significant part of the Matrix. These are:

1. Self-Awareness
2. Educational Awareness
3. Career Awareness
4. Economic Awareness
5. Decision Making
6. Beginning Competency
7. Employability Skills
8. Attitudes and Appreciations

ARTICULATION OF CAREER EDUCATION GOALS

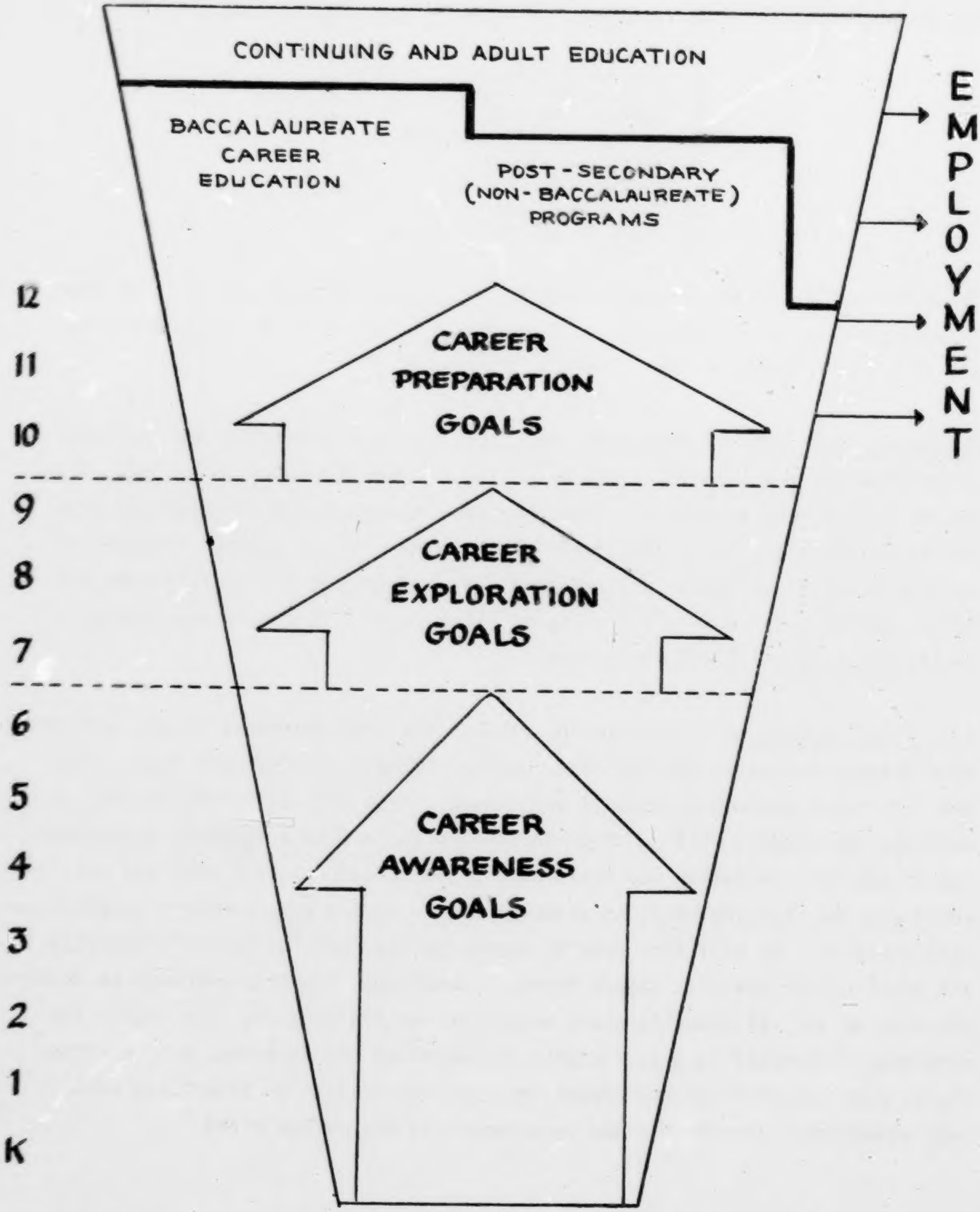

CONTINUING AND ADULT EDUCATION
BACCALAUREATE CAREER EDUCATION
POST-SECONDARY (NON-BACCALAUREATE) PROGRAMS
EMPLOYMENT
12
11
10
9
8
7
6
5
4
3
2
1
K
CAREER PREPARATION GOALS
CAREER EXPLORATION GOALS
CAREER AWARENESS GOALS

FIGURE 1

Each student progressing through a career education program related to the eight elements should be able to operate in society in a manner consistent with the element outcomes. The outcomes for each of the eight elements are:

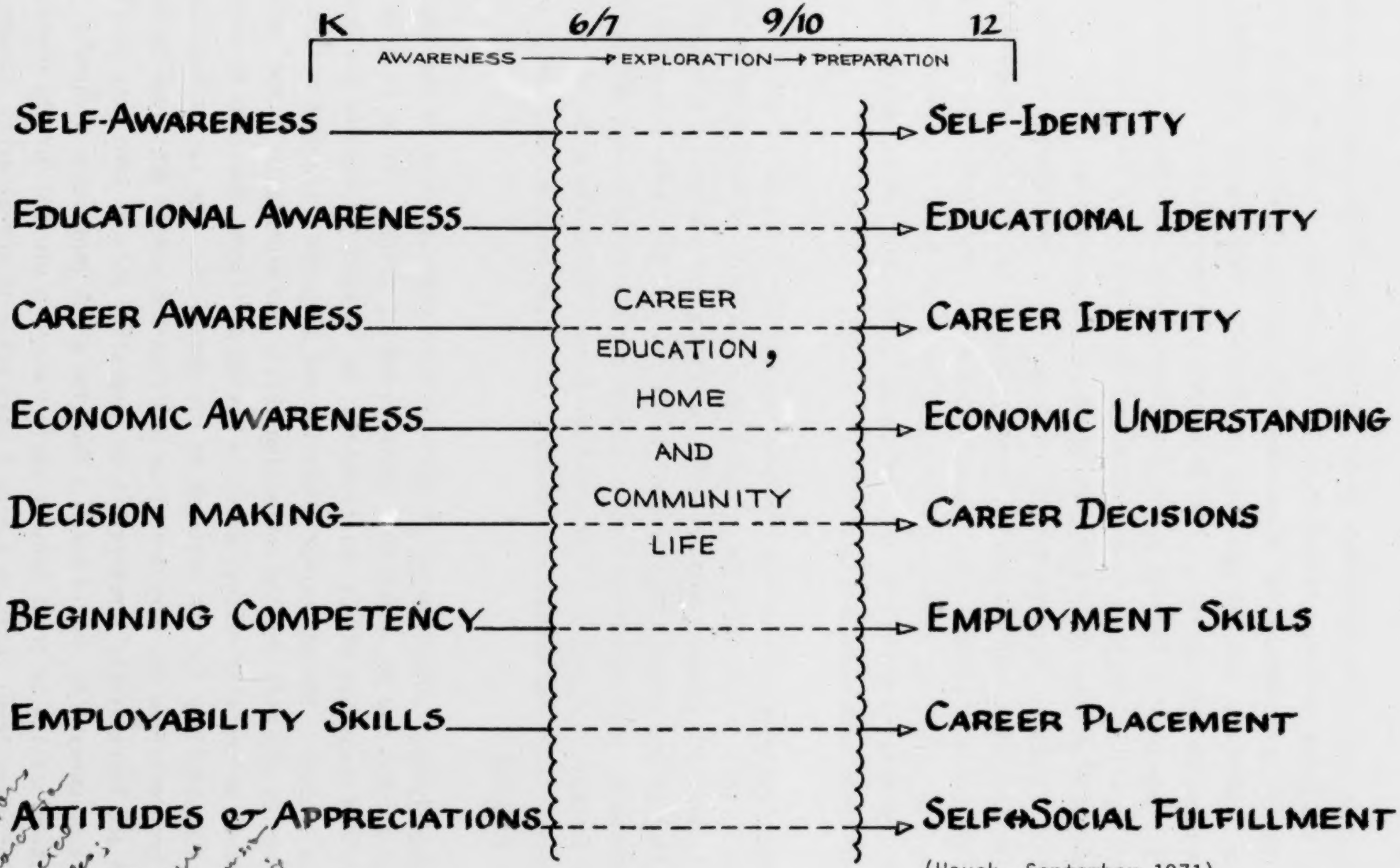
1. Self-Identity
2. Educational Identity
3. Career Identity
4. Economic Understanding
5. Career Decisions
6. Employment Skills
7. Career Placement
8. Self-Social Fulfillment

The relationship between career elements and career outcomes, as well as their relationship to career education, is illustrated in Figure 2. Statements describing each element follow: (Hauck, September 1971)

Self-Awareness: The student entering school has some knowledge and attitudes about himself, what kind of a person he is, and what he hopes to become. This can be titled self-awareness. Through career education and his home and community experiences, the student will become involved in a planned, sequential process of self-assessment and self-evaluation which results in self-identity. As he realizes who he is and what he is like, he will develop a reasonably consistent internalized value system.

Educational Awareness: The entering student has some awareness of the relationship between education and training, whether formal or experience based, and the life roles assumed by himself and others. From this basic educational awareness the student will continue to develop and refine a thorough understanding of the part education and training play in relation to the real and now world and the changing world in which he will assume a more complete, productive participation. He will also come to recognize the need for specific education and training for specific career roles. Educational identity combines an understanding of the relationship among education and training and life roles, the knowledge of himself as a participant in education and training, his learning style, pace capabilities and capacities, and the ability to select and evaluate educational avenues for the development of his career plans.

ELEMENTS OF CAREER EDUCATION


K
6/7
9/10
12
AWARENESS → EXPLORATION → PREPARATION
SELF-AWARENESS
EDUCATIONAL AWARENESS
CAREER AWARENESS
ECONOMIC AWARENESS
DECISION MAKING
BEGINNING COMPETENCY
EMPLOYABILITY SKILLS
ATTITUDES & APPRECIATIONS
CAREER EDUCATION, HOME AND COMMUNITY LIFE
SELF-IDENTITY
EDUCATIONAL IDENTITY
CAREER IDENTITY
ECONOMIC UNDERSTANDING
CAREER DECISIONS
EMPLOYMENT SKILLS
CAREER PLACEMENT
SELF↔SOCIAL FULFILLMENT

(Hauck, September 1971)

Set conditions for exploration as crucial variables; perhaps there are other dimensions of maturity

FIGURE 2

Career Awareness: The individual entering school possesses some knowledge about, attitudes toward, and interests in some careers. He knows something about career performances and associated life-styles, rewards, leisure time, working conditions, and the education and training requirements possessed by some persons in some careers. That knowledge of careers can be referred to as career awareness. Through career education, home, and community life the student should be assisted in understanding the broad range of careers which are available as they serve him, the community, or society-at-large. He should also be assisted in learning what is involved in the development, growth, behavior, training, and rewards of persons engaged in specific occupations. From this broad understanding, or career awareness, the student should experience active career exploration and preparation which leads to career identity. Career identity is defined as the individual's selection of an appropriate role or roles within the world of work.

Economic Awareness: The child has observed and participated in the economic system in some extent prior to school entry. Building on this base of economic awareness, career education will facilitate the student's thorough exploration of the economic system both as it relates to career development and the community and society-at-large. Economic understandings are defined as those conceptual elements and networks which make it possible for the child or adult to *read* the economic environment and solve personal and social economic problems.

Decision Making: The entering student has some understanding of the decision-making process and possesses some decision-making skills. If he is able to understand cause and effect relationships, he is ready to examine the decision-making process. Through career education and supporting school and life experiences, he will develop increasing skills and experience in the rational processes of decision making, practice making decisions, and come to accept the responsibility for the outcomes of his decisions. The career decisions will progress from the very tentative and flexible career decisions to those which are increasingly irreversible or reversible only at some cost of time, effort or money. He should reach a decision which represents a careers direction-setting by grade ten, or early enough to provide for the development of entry-level skill in a career plan prior to school exit. Career decisions are defined as a careers direction-setting, the product of a rational process, a plan for immediate, intermediate, and long-term career development.

Beginning Competency: Beginning competency is related to the student's ability to make tool and process applications. The entering student already possesses some beginning competence in applying tool and process applications. Tool applications are defined very broadly to include "all of the ways in which man extends his behavior" (Bruner, 1960). Man extends his ideas over time and space by the use of written communication, the telephone, paintings, photography, and by building devices. He extends his senses by the use of microscopes and telescopes, his physical capability and capacity by the harnessing of energy and the using of tools. Man engages in process applications by imitating sequences of individual or group activities or creates new sequences of activities to accomplish tasks. Career education provides opportunities for the student to participate in tool and process applications in order to provide for employment skills. Additionally, this development will feed into other elements of career education, such as career identity, self-identity, and economic understanding.

Employability Skills: The element employability skills is concerned with locating and obtaining career placement both on an initial and an advanced basis. Employability skills also deal with developing group participation, other social-relation awarenesses and skills, and skills related to worker adjustment.

Attitudes and Appreciations: The element attitudes and appreciations was included as a means of focusing attention on the affective component of career education. Through career education and its supporting systems, the individual should develop an internalized value system which includes a valuing of his own career role and the roles assumed by others. These appreciations and positive attitudes toward his own career role and the roles of others in the society should lead to active and satisfying participation as a productive citizen and thus, provide for both self-fulfillment and social fulfillment. Self-social fulfillment is defined as the internalization of a value system which motivates the student toward becoming a self-actualized, self-fulfilling member of the world of work with appreciations for his own role and the roles of others.

The Matrix is based on the concept that career education is a developmental process which goes hand-in-hand with the growth and development of the individual. The eight elements are regarded as necessary and sufficient to constitute the definition of career education.

THEORETICAL BASE

The entire concept of career education is so new that a definitive theory is still in the process of emerging. This theory emerging through CCEM is an integration of concepts related to self, culture, and career. As the Matrix is used more intensively and extensively, a more detailed exposition of its theoretical base will be possible. The structure of the Matrix enables relevant information to be identified, classified, and organized. It guides inquiry into the substance and process of career education.

Persuasive reasons have been advanced by Bruner (1960), Heath (1964), Phenix (1964), and Rosenbloom (1964) in support of building the curriculum on structural components derived from the disciplines. Those reasons include: Economy of learning is enhanced by the focus on fundamental ideas and the use of content to develop key ideas. Relationships among ideas are high-lighted as a sense of structure emerges through the use of concepts and generalizations in active inquiry. Fundamental ideas are brought to bear upon the solution of problems, and current problems are used to extend understanding of key ideas. Transfer of learning is facilitated as concepts and generalizations of broad applicability are stressed.

Bruner (1960) distinguishes between developmental stages which are primarily a function of physiological and psychological maturity and those which are primarily cognitive and experiential and may be a function of planned educational experiences. He maintains that readiness for learning is a function of the curriculum and not exclusively a function of the child's growth. This suggests that career education can be incorporated at any grade level in terms appropriate to the child's level of understanding and paced in accord with his attention and comprehension span. The elements, themes, and goals of the Matrix make it possible to develop systematically a career education program that begins in kindergarten and continues through senior high school.

The emergence of career education theory is related to the fact that career psychology is now readily distinguishable from vocational psychology. Career psychology places emphasis on the individual and his progression through stages of preparation and performance of occupational roles whereas vocational psychology places emphasis on the individual meeting the requirements of a specific job.

Career education theory consists essentially of merging career and educational development theory. The career education concept is a forceful assertion that education be considered a part of the overall career development process.

During the last decade educational development has made significant advances in the area of cognitive growth. Until now these advances have not yet been fully combined with career development theory under the rubric of career education. Cognitive, affective, and psychomotor development theories, along with related theories of social and human development, become the educational ingredients for the concept of career education.

One of the most significant contributions of recent curriculum theory is the emphasis on development of the student's competence in using conceptual schemes and methods of inquiry. This enables the individual to gain increasing independence from the educational setting and continue to learn throughout his lifetime. Thus, the individual will reap greater benefits from all areas of his experience.

Congruence with career development theory is reflected in the Matrix by its early provision for every student to experience systematic and purposeful development of appropriate understanding and skills related to self, society, and career.

The Matrix combines in one conceptualization the important aspects of career and educational development theory. This union is effected in the Matrix making the foundation for career education comprehensive.

CRITICAL CONCEPTS

The Matrix rests upon four critical concepts:

1. The hypothesis that the eight elements represent a complete picture of what should be infused into contemporary education to achieve career education.
2. The hypothesis that the whole of career education can be broken down into manageable parts that continue to relate to that whole. Thus, elements define themes; themes define goals; goals define performance objectives; and performance objectives define learning activities for the student.
3. The hypothesis that career education is attained through the cumulative effect of sequenced and interrelated learning experiences.
4. The hypothesis that academic and vocational curricula can be united within career education.

MATRIX DEVELOPMENT

Matrix development is documented in large part by correspondence between the CCEM staff and the LEAs and packets of Delphi materials. Documentation indicates that the Matrix development process proceeded in a systematic, coordinated manner.

The endeavor to develop a detailed and inclusive conceptualization of career education began with the examination and integration of authoritative theories in the fields of human growth and development, social development, guidance, career development, curriculum development, and taxonomies of educational objectives. The eight elements which became part of the Matrix structure emerged in July 1971 as a result of efforts to conceptualize career education. During the same period of time, outcomes were identified for each element. These elements, when defined at the performance-objective level, were intended to be transformed into instructional programs.

It was emphasized early in the project that career education would be effective to the extent that it would become an integral part of the total education program. Thus, the thirteen grade levels, K-12, became the target for applying the concepts represented by the eight elements. When the eight elements are extended across grade levels K-12, a grid with 104 cells is produced (8 elements x 13 grades). This is illustrated in Figure 3.

Late July through August 1971 was a crucial time. Using the elements as a guide, CCEM staff developed a sample set of goals and performance objectives for each grade level. The preliminary conceptualization was reviewed by seven consultants representing various educational specialties. They concluded that the elements were both necessary and sufficient for career education. This conceptualization became identified as the Matrix.

The consultants also expressed concern for teacher involvement in the actual development of Matrix content. As a result, plans were formulated to involve LEA staffs in the development of the Matrix. In addition to a core group of teachers, school counselors, school administrators, parents, and students were included. They produced the first iteration of goals and performance objectives.

During September 22-24, 1971, a LEA initiation conference was held to explain the conceptualization of the career education elements and plans for the development of the Matrix. This conference provided a base from which the LEAs were to develop a plan for conducting local Matrix workshops.

CCEM staff coordinated the month-long workshops at each LEA starting October 1971. Preparation of workshop materials resulted in increased specificity in the exposition of the Matrix and its related terminology. Workshop participants helped to develop the Matrix by writing first-draft goals for an element at each grade level and by translating each goal into performance objectives. Upon completing the task for each element in a prescribed order, the LEAs immediately telephoned or air mailed results of their work to CVTE where CCEM staff compiled the input from each LEA and returned it for their review. This modified Delphi process provided each LEA the opportunity to review the combined work and act upon each goal and performance objective in terms of accepting, rejecting, or suggesting modifications.

Through the Delphi process LEA personnel and CCEM staff reviewed and clarified input to determine which goals should be in the Matrix and how they should

CAREER EDUCATION MATRIX

	K	1	2	3	4	5	6	7	8	9	10	11	12	
SELF-AWARENESS														SELF-IDENTITY
EDUCATIONAL AWARENESS														EDUCATIONAL IDENTITY
CAREER AWARENESS														CAREER IDENTITY
ECONOMIC AWARENESS														ECONOMIC UNDERSTANDING
DECISION MAKING														CAREER DECISIONS
BEGINNING COMPETENCY														EMPLOYMENT SKILLS
EMPLOYABILITY SKILLS														CAREER PLACEMENT
ATTITUDES AND APPRECIATIONS														SELF-SOCIAL FULFILLMENT

FIGURE 3

be ordered. An important aim in the Matrix development project was to relate and sequence goal statements, moving and building in an articulated manner from the kindergarten level to the senior high school levels within each element. The Delphi technique used with input, feedback, and evaluation procedures is well documented in related correspondence and instruments.

CCEM staff observed that a number of Matrix goals tended to repeat across an element at successive grade levels. These were accepted as further definition of elements and called themes. Thirty-two themes emerged and provided an additional level of specificity within the elements. These were generated by grouping goals with common content extending across all grade levels. The goal statement intent was then reaffirmed to be grade specific. This version of the Matrix consisted of 416 cells (32 themes x 13 grade levels) and had approximately 1500 goal statements. The sequential development of each theme specifies one or more goals per grade level per theme. Each cell calls for a specific set of learning experiences needed at each grade level in each theme. The theme-associated Matrix cells represent a workable basis for organizing components for career education.

The original Matrix was intended to be a tool extending to the level of performance objectives. In March 1972, however, it became apparent that the most appropriate level of specificity within the Matrix would be at the goal statement level. Thus, the present version has goal statements in each cell. Performance objectives are now part of the curriculum units.

Westinghouse Learning Corporation, working jointly with CCEM staff, provided technical editing for the current version of the Matrix. The editing process has consolidated the content of each cell, added more specificity to a goal if its statement was not clear without the related performance objective, and eliminate duplication of goals across themes at a grade level in order to establish the distinctiveness of each theme. CCEM and Westinghouse staff combined efforts in using this process to refine themes and goals for grades K-12.

The importance of social awareness as a distinctive concept within the Matrix was emphasized in "Report on Matrix Development" (Adams, December 15, 1971).

The Delphi resulted in two themes within the attitudes and appreciations element. It was suggested that the Matrix and the element would be strengthened by use of the more inclusive term social awareness. Continued refinement of the Matrix in this regard and in other ways is contingent upon future stages of project development.

MATRIX APPLICATION

Using the Matrix as a reference, the LEAs in cooperation with the CCEM staff initiated search and selection of curriculum units that would deliver Matrix goals in February 1972. The Matrix-based curriculum unit survey, used first at the LEA level and then at a national level, revealed that units directly applicable to career education were largely non-existent and that units would have to be either substantially modified or developed within the project. This finding had a major effect upon the direction and scope of the project.

In accord with the need to develop curriculum units the Matrix has been applied, since January 1972, to such tasks as determining whether attention is being given to the content that should be considered for inclusion in curriculum units, assuring that the units developed are topically comprehensive and soundly based, and checking for sequential development of concepts in topically-similar curriculum units at different grade levels. The Matrix also provided the contextual frame for writing performance objectives which have become part of the curriculum units. Matrix goals have provided the focal points around which curriculum units have been modified or developed.

Two key instruments developed by the CCEM staff and distributed to LEA teachers to facilitate the selection of existing curriculum units and the refinement of newly developed units are the Curriculum Unit Selection Instrument (December 1971) and Unicheck (February 1972). The Matrix was applied as a reference in the process of formulating these instruments. The Matrix will also be applied as a reference base for the field testing of curriculum units which is planned to start in September 1972.

The Matrix was originally used as a basis for curriculum selection and to articulate the career education delivery system. In addition, it has also been used effectively to provide a basis for curriculum unit development, a basis for articulation of the sequential and complementary arrangement of curriculum and guidance units, a basis for the evaluation of career education, a basis for the contracting process, and a basis for the validation of the entire CCEM project.

FURTHER VALIDATION EFFORTS

The present level of Matrix validation has been accomplished largely through consensus and expert opinion. Further validation will occur as components are developed, pilot and field tested, and the entire model is collated and validated for transportability. The focus will be on the degree to which the CCEM assists every student to understand the relatedness of learning experiences to real life and to achieve placement in either a job or a higher education program. Validation will be based on criteria that place the highest value on providing students with the understandings and experiences necessary to manage more effectively the transition from school into society.

SECTION I. THE COMPREHENSIVE CAREER EDUCATION MODEL--MATRIX DEVELOPMENT

C. SUMMARY - SCOPE AND SEQUENCE

A summary was developed which outlines the scope and sequence of the Developmental Program Goals. It consists of 104 cells that were generated by considering the eight broad career elements, with their outcomes across 13 grade levels. Each cell contains a mission statement that summarizes appropriate themes and goal statements. For example, the cell relating to the element self-awareness at the kindergarten level contains six themes and 22 goal statements. These are summarized in a one-paragraph mission statement.

SUMMARY - SCOPE AND SEQUENCE

	K	1	2	3	4	5	6	7	8	9	10	11	12	
Self-Awareness														Self-Identity
Educational Awareness														Educational Identity
Career Awareness														Career Identity
Economic Awareness														Economic Understanding
Decision Making														Career Decisions
Beginning Competency														Employment Skills
Employability Skills														Career Placement
Attitudes and Appreciations														Self-Social Fulfillment

The scope and sequence paragraphs identify the major ideas, content, and thrust of the various goal statements. Each of these descriptive statements considers the cognitive, affective, and psychomotor domains of the numerous themes and goals. Certain ideas are repeated across several grade levels and identify a developmental approach. These mission statements describe concepts about which the student should become aware, ideas he should explore, and activities he should be able to perform.

SELF-AWARENESS

Kindergarten

The student becomes aware of his interest in certain toys and play activities. He recognizes family roles and the influence of other people. He becomes aware of his body-space relationships and cultural differences.

Grade One

The student becomes aware of his interest in certain games and his physical abilities to perform tasks. He shows an increased awareness of himself and his relationships to others. He recognizes his role and his rights and responsibilities at home and school.

Grade Two

The student becomes aware of his interest in selected activities and increased ability to perform tasks. He is aware of the importance of his achievements in the classroom. He enacts roles played by himself, family members, and his teacher. He recognizes that there are certain requirements for his membership in a group.

Grade Three

The student becomes aware of his interest in tools and his abilities to perform specific tasks. He becomes aware of his body's physical capabilities and spatial relationships. He recognizes that people with similar roles may behave similarly. He recognizes the importance of his achievements. He recognizes cultural differences and the uniqueness of himself and others.

Grade Four

The student understands the importance of his achievements as related to learning tasks. He identifies his interests in major types of roles played by individuals and becomes aware of how the roles complement each other. He recognizes that his behavior can be influenced by group membership and identifies some of his unique personal characteristics and values. He becomes aware of the relationship between his health and his physical development.

SELF-AWARENESS

Grade Five

The student recognizes that his interests and aptitudes influence him. He becomes sensitive to other people. He demonstrates ability to focus his interests from immediate to longer range. He recognizes the comparative nature of roles in society and begins to internalize an interest in particular roles.

Grade Six

The student becomes aware that his interests, aptitudes, and achievements will influence his future occupational goals. He recognizes the relationship between his health and physical development and recognizes his cognitive, psychomotor, and affective capabilities. He becomes aware that role expectations influence his development. He becomes more selective about his interests and understands how they relate to his development of values.

Grade Seven

The student refines his interests in work roles relative to the career clusters. Experiencing work tasks, he relates associated roles with his emerging values. He recognizes the worth of different value systems and learns to resolve problems of conflict.

Grade Eight

The student formulates tentative career choices based upon an awareness of his emerging values. He understands that priorities, values, and goals are modified throughout life. He recognizes the social, economic, and cultural values related to the various roles which interest him.

SELF-AWARENESS

Grade Nine

The student applies recognition of his values and skills to the exploration of career information. As his values clarify he establishes tentative career goals. He explores the effects of health and physical development on daily performance. As he experiences an occupational role he understands how his values relate to his performance of the tasks.

Grade Ten

The student internalizes the meanings of his values and emerging goals in relation to his present experiences. He uses the concept of role to analyze his present and projected life-style. He understands personal needs when setting goals and monitoring progress. He is sensitive to his interactions with other people.

Grade Eleven

The student assesses the personal relevance of his career preparation progress. He constantly evaluates the personal significance of emerging alternatives in terms of considering both new prospects or reaffirming chosen courses of action. He recognizes his uniqueness, the need to consider new alternatives, and demonstrates sufficient self-awareness to set goals.

Grade Twelve

The student considers his pattern of values and his cognitive, affective, and psychomotor skills in making career plans. He perceives himself and others realistically in terms of relationships and proposed plans.

Kindergarten

The student becomes aware that situations relevant to school achievement may be experienced in and outside of the classroom. He recognizes that school activities relate to himself and his family.

Grade One

The student becomes aware that he is in school to learn and that other people know things because they have learned. He recognizes that learning to read, write, and count is necessary both in the classroom and in most occupations.

Grade Two

The student becomes aware that he can share knowledge with his classmates. He understands how classroom and outside-of-school experiences may be related. He recognizes that various occupations have different educational requirements. He becomes aware that learning helps people do things for their community, state, and nation.

Grade Three

The student becomes aware that learning is continuous and that school experiences are relevant to life experiences. He recognizes that goods and services are produced by people who have different kinds of educational preparation. He recognizes that the student-teacher relationship is an important aspect of the learning process.

Grade Four

The student becomes aware that learning is based on prior experiences. He understands that different occupations require different educational preparation. He becomes aware of how and why reading, writing, number skills, art, and science are used in some occupations.

Grade Five

The student becomes aware of the importance of education and the relationship between in and out-of-school earning. He recognizes how school experiences become preparation for careers and the correlation between skills learned in school to those used by workers.

Grade Six

The student becomes aware that learning depends on his desire and capability to learn. He understands that preparation and proficiency are required for job entry in most occupations. He recognizes environmental factors which affect career choices and employment conditions.

Grade Seven

The student recognizes various learning experiences and relates them to possible use in occupational groups. He understands that educational experiences and preparation are required for careers. He recognizes that external factors may affect his interest in certain occupations.

Grade Eight

The student becomes aware of the relationship between interest and learning and the differences among cognitive, affective, and psychomotor learning. He recognizes the relationship between levels of education and employment. He understands that proficiency in subject areas is necessary to enter certain occupations.

Grade Nine

The student becomes aware that learning can apply to his use of time throughout life. He learns that educational preparation for various careers may take different forms. He accepts simulation as a means of learning job skills and examining a tentative job choice.

Grade Ten

The student becomes aware of the extent in-school education has played in determining his occupational interests. He recognizes a relationship between in-school and on-the-job education. He learns that different types of educational preparation are needed for various careers.

Grade Eleven

The student becomes aware that learning is variable, that one learns faster or slower at different times. He understands the in-school educational steps necessary to qualify for selected occupations. He recognizes the need to evaluate his progress as he moves toward career goals.

Grade Twelve

The student understands why and how he learns. He plans for post-secondary educational experiences necessary for the career of his choice. He recognizes that continual learning is a part of life.

CAREER AWARENESS

Kindergarten

The student becomes aware that there are many kinds of tasks to be done in school. He recognizes workers in the community and becomes aware of some of the goods produced and services provided.

Grade One

The student becomes aware of a variety of jobs in his home, school, and community. He recognizes different places of employment. He becomes aware that specialized skills and training are required to perform most jobs. He becomes aware of the concept of basic needs in relation to himself.

Grade Two

The student becomes aware of his family's basic needs and the concept of life-style. He becomes aware of the relationship between needs and job in his home, school, and community. He recognizes that individual skills effect task performance.

Grade Three

The student becomes aware of the variety of job tasks in the occupational world and their relationship to goods and services. He learns that preparation of a school task relates to success in performance. He identifies some instruments used to perform specific tasks. He recognizes that basic needs for goods and services are satisfied by working.

Grade Four

The student recognizes career specialization in his community, state, and nation. He becomes aware of the social and economic factors that generate careers. He becomes aware of the interdependence of occupations to fulfill individual and community needs and interests. He learns about working conditions and life-style associated with five career clusters.

Grade Five

The student becomes aware of the complexity of the world of work. He recognizes that success in occupations requires functional competencies and that performance standards are necessary. He recognizes that occupations are related to community needs and interests which change over time. The student begins to identify his preferred life-style.

Grade Six

The student studies jobs according to particular classifications and identifies their relationships. He relates careers to social needs and geography and recognizes their relationship with data, people, and things. He recognizes that behavior and skills which influence success in school also influence job success. He understands that career changes are natural and that careers may begin and terminate with the passage of time.

Grade Seven

The student explores the types of jobs which make up various classifications. He recognizes the relationship between occupational requirements and educational development. He understands the relationship between career choice, rewards, and individual life-style.

Grade Eight

The student recognizes how careers become specialized and vary on the basis of the complexity of social values and geographic locations. He recognizes occupational requirements as they relate to functioning in terms of data, people, things and that choice, mobility, and advancement are related to preparation. He understands how differences in life-style are related to personal values and occupational choice.

Grade Nine

The student becomes aware of the implications of career specialization. He recognizes the relationship between specific occupational preparation and career clusters. He becomes aware of job entry requirements. He correlates the monetary benefits of his chosen occupation with his chosen life-style.

Grade Ten

The student explores occupations related to the area of work he is considering. He becomes familiar with current and future job opportunities as they relate to social and economic trends in certain geographic areas. He recognizes personal and organizational factors that influence horizontal and vertical mobility.

Grade Eleven

The student examines in detail social and personal implications related to selected career areas. He understands the criteria and training required to enter his chosen career. He understands that career selection is vital to his general well-being and can alter his life-style.

Grade Twelve

The student evaluates future job opportunities based on his values and goals. He knows how to pursue his chosen career, develops an action plan, and takes the steps which are necessary to implement his plan.

Kindergarten

The student becomes aware of why people work. He recognizes some of the uses of money and trade. He learns that, in some instances, fulfillment of his wants must be postponed.

Grade One

The student becomes aware of the different forms of money and financial institutions. He recognizes that money is exchanged for work. He recognizes the relationship between need and want.

Grade Two

The student becomes aware that different kinds of work offer different economic rewards and other benefits. He becomes aware of money as a means of exchanging goods and services. He becomes aware of the economic relationship between himself, family, and school.

Grade Three

The student recognizes that social and economic needs and wants differ among students. He becomes aware that economic rewards help satisfy desires and interests. He understands his present relationship to buying, selling, saving, and borrowing. He recognizes the economic relationship between himself, family, and community.

Grade Four

The student recognizes that his interests will affect his future. He recognizes that economic activities include buying, selling, saving, and borrowing. He identifies the individual needs and wants of himself and others. He becomes aware of the relationship between interest, satisfaction, and career. He recognizes the economic interdependence of himself, family, and community.

ECONOMIC AWARENESS

Grade Five

The student identifies the roles of financial institutions. He recognizes that some economic actions are an attempt to achieve economic security. He becomes aware of the uses of budgeting, investment, and credit purchasing. He can identify necessities and luxuries. He recognizes that individual needs and wants differ.

Grade Six

The student becomes aware of the economic and social contributions of organized groups. He becomes aware of the interrelations between earnings, spending, borrowing, saving, and investing. He recognizes economic principles which apply to his life, family, and community.

Grade Seven

The student becomes aware of social and economic relationships between life-styles and career choices. He is able to demonstrate budgeting principles and recognizes the concept of economic security. He becomes aware of the economic interrelatedness of community, state, and national governments.

Grade Eight

The student applies his knowledge of life-style and economic security to explore his attitudes toward various occupational choices and their associated worker traits. He becomes aware of the interrelatedness of his choice with the choices of others. He becomes aware of budgeting, capital management, and financial institutions. He recognizes economic cycles and fluctuations which affect individual, family, community, state, and national economic interests.

ECONOMIC AWARENESS

Grade Nine

The student surveys the range of social and economic benefits in the career cluster of his choice. He understands that career choice and money earned can affect life-style. He examines career choices using his knowledge of economic planning tools and worker traits and his recognition of uncontrollable events and of the economic interdependence of the community, the state, and the nation. He becomes aware of macro-systems and tools used in economic forecasting.

Grade Ten

The student identifies the immediate steps and costs in terms of time and education required to pursue a chosen career. He understands principles which govern economic macro-systems and recognizes their relationship to his career goals.

Grade Eleven

The student understands that individual value systems determine economic and career aspirations. He understands his pattern of values and its relationship to his career choices. He determines how his social and economic needs relate to his career choice. He understands the relationships between different economic macro-systems. He understands economic trends and uses the tools for forecasting them to influence his career choices.

Grade Twelve

The student understands the economic and social benefits associated with his career plans. He understands the action and finances necessary for entering his chosen career. He understands that his economic and career security are interdependent with that of other individuals. He understands how he may apply knowledge of economic principles to participate in influencing government activity in the economy.

DECISION MAKING

Kindergarten

The student becomes aware that he has a choice in some situations related to himself, family, and school. He understands that decisions require "making up one's mind." He becomes aware of the kinds of media that interest him most.

Grade One

The student becomes aware of the relationship between his interests and making choices. He becomes aware that reasons for making choices may change and that information sources influence his choices. He becomes aware of the relationship between alternatives and choices.

Grade Two

The student recognizes that having interests necessitates making choices in and out of school. He becomes aware that his choices affect other people and that they may or may not be accepted. He becomes aware of decisions that family members and neighbors make in their jobs.

Grade Three

The student becomes aware that decisions made in school affect decisions outside of school. He recognizes that decisions involve other people. He becomes aware that solutions to problems differ and making decisions involves consequences. He knows where to gather information regarding jobs performed by his family and neighbors.

Grade Four

The student recognizes that membership in social groups requires making decisions and that his interests and relationships with other people influence his immediate and long-range decisions. He becomes aware of decision-making processes. He realizes that consequences are associated with making decisions. He identifies local sources of information concerning careers.

Grade Five

The student recognizes that making decisions is necessary to satisfy personal interests. He recognizes that personal characteristics are related to worker functions and influence career decisions. He becomes aware that emotions, values, and information are critical factors in decision making. He gathers, organizes, and relates information on a specific occupation.

Grade Six

The student understands how personal interests and characteristics influence career decisions. He is able to respond to questions related to career preference. He recognizes problem solving as a skill and that his feelings and previous decisions influence his decision-making behavior.

Grade Seven

The student explores career clusters in relation to his interests. He understands that personal values and characteristics influence decision making. He gathers and organizes information in order to respond to questions regarding career exploration. He determines a course of study for grades eight through twelve in conformance with a tentative career choice.

Grade Eight

The student becomes aware that establishing priorities among his values requires making decisions. He recognizes the factors that influence his career-related or educational choices. He recognizes decision-making skill in problem solving and making tentative choices regarding long-range career interests.

Grade Nine

The student recognizes that occupational choice requires decisions related to personal values. He reexamines past decisions regarding tentative career choices in terms of new information and adjusts his decisions accordingly. He analyzes the influence of other people on his career choices. He begins to gather occupational and personal assessment data.

Grade Ten

The student understands that personal goals involve decisions. He applies decision-making skills to career possibilities, recognizing that external forces have influence. He recognizes school courses and work experiences that will prepare him for specific career areas.

Grade Eleven

The student states his goals and examines decisions required to pursue them. He considers new sources of occupational information and applies decision-making skills to a consideration of career goals. He analyzes how career characteristics, such as requirements, work conditions, rewards, and worker functions influence career decisions.

Grade Twelve

The student develops a plan related to his long-range goals. He recognizes the need for flexibility in the planning process and the need for current information, evaluations, and possible revision. He sythesizes and evaluates personal goals and values in confirming his career plans.

Kindergarten

The student develops skills in listening, enacting, discriminating among concrete objects, and manipulating simple tools. He becomes aware that steps are involved in completing tasks and the need for safety in the use of simple tools. He becomes aware of the various relationships he has with other people in the classroom and the need for physical coordination in classroom activities.

Grade One

The student develops skills in physical coordination, self-expression, computation, and cooperating with others. He becomes aware of the different types of learning and working relationships in his various environments and simple cause and effect relationships. He becomes aware of the importance of safety in school activities and the need to care properly for tools and materials.

Grade Two

The student increases his communication, computational, and interpersonal skills and recognizes that skills develop over time, from simple to complex. He becomes aware of critical thinking skills and interpersonal behavior appropriate to various work settings. He takes responsibility for tools, equipment, and materials and recognizes the variety of uses for tools. He increases the level and comprehensiveness of his physical skills and coordination.

Grade Three

The student develops cognitive skills for communicating, computing, identifying problems, sequencing tasks, and locating and organizing information and tools. He becomes aware that different resources may be required at various steps in skill development. He becomes aware of levels of responsibility associated with different occupations. He demonstrates responsible safety habits at work and play and continues to develop physical skills and coordination.

BEGINNING COMPETENCY

Grade Four

The student develops techniques for problem solving, tool use, communication, computation, and organization. He becomes aware that responsibility levels influence behavior. He continues to develop safety habits and physical skills commensurate to his maturity.

Grade Five

The student recognizes the role interpretation plays in communication. He develops critical thinking skills, using the scientific method, and is able to organize simple tasks. He responds appropriately when he is relating to other persons with differing levels of responsibility. He recognizes the physical aspects of work and the importance of muscular coordination.

Grade Six

The student becomes aware of the need for resources and recognizes limiting factors which must be considered in setting task objectives and understands the basic problem-solving process. He recognizes which behaviors contribute to positive human relationships in various environments. He recognizes the cognitive and psychomotor competency needed to use tools, equipment, and materials effectively and safely.

Grade Seven

The student explores problem-solving situations in career areas, identifying objectives of assigned tasks, and organizing sub-task sequences. He applies a variety of communication and organization skills to tasks. He recognizes the relationship between educational achievement, occupational environment, and level of responsibility. He understands how behavior expresses attitudes about interpersonal relationships. He develops a component of career entry-level capability and becomes aware of the relationship between physical and occupational skills.

BEGINNING COMPETENCY

Grade Eight

The student explores communication, mathematical, organizational, and problem-solving skills necessary in selected career areas. Through an understanding of relationships among educational levels, environment, and responsibility he identifies appropriate behaviors in interpersonal associations. He realizes the need for group participation in completing certain tasks. He develops physical skills appropriate to selected career areas.

Grade Nine

The student gains proficiency in problem solving, communication, and mathematics as applied to selected career areas. He identifies information common to career areas and develops an entry-level capability for a specific career area. He demonstrates proficiency in physical skills and safety practices related to career areas.

Grade Ten

The student develops proficiency in skills and knowledge sufficient for entering an occupational area. He applies problem-solving skills, applies observation skills to data collection, and understands the relationship of tools and specific tasks in self-selected career areas. He understands that the relative level of responsibility among persons can influence interpersonal relationships.

Grade Eleven

The student plans and executes a project, understanding that evaluation and replanning may be necessary during execution. He understands the physical aspect, safety, and various properties of tools and materials relative to accomplishment in a career area. He refines academic skills directly applicable to a job and understands that the relative level of responsibility influences his on-the-job relationships.

BEGINNING COMPETENCY

Grade Twelve

The student demonstrates mastery of career entry-level skills and an understanding of the future physical and academic requirements related to the career of his choice. He masters those interpersonal skills likely to be expected of him while looking for and after accepting a career entry job or opportunity for further education.

EMPLOYABILITY SKILLS

Kindergarten

The student performs simple tasks in individual or group settings. He becomes aware of the importance of following directions and the fact that tasks may be completed in various ways. He relates information about his activities.

Grade One

The student recognizes that some tasks are better performed alone and others in a group. He recognizes the importance of listening and following oral instructions. He relates personal information and becomes aware of social skills appropriate to different situations.

Grade Two

The student recognizes that his preference for certain activities is partially dependent upon his willingness to work with others. He becomes aware of the importance of attitudes and habits in performing assigned tasks. He describes increasingly complex information about himself and his activities. He applies social skills appropriate to different situations.

Grade Three

The student recognizes that supervision and cooperative effort make some tasks easier. He recognizes responsibility and the importance of completing assigned tasks. He develops skills necessary for receiving and communicating task directions.

Grade Four

The student becomes aware of different styles of leadership and recognizes specialization within group work. He recognizes that a person's appearance and behavior affect the way others relate to him. He communicates information about himself as it relates to specific tasks he might like to pursue. He recognizes the importance of punctuality, responsibility, and following directions.

Grade Five

The student demonstrates that he can function in different task settings involving various combinations of data, people, and things. He recognizes the relationship between task completion and order and structure. He communicates information about his interests, aptitudes, and achievements as they relate to jobs in his community. He becomes aware of the personal appearance, social skills, and work habits associated with certain jobs.

Grade Six

The student understands the advantages of selecting preferred tasks and recognizes that work situations may require skills he doesn't have. He relates his achievements and interests to a wide variety of job settings. He becomes aware of skills, attitudes, and habits associated with employability.

Grade Seven

The student recognizes a relationship between task preferences and responsibilities assumed and between directing and being directed. He recognizes a relationship between work interest and adjustment ability. He understands the effect of a person's appearance and behavior on the way others relate to him. He responds to job survey instruments and identifies job openings appropriate to his level of ability.

Grade Eight

The student assesses the reality of his work preference, completes simulated job-application forms and responds coherently to interview questions. He recognizes that both independent and group activities may be necessary for accomplishing tasks and refines the social and communication skills necessary for employability.

Grade Nine

The student recognizes the difference between entry-level jobs and jobs which have career ladders. He recognizes the relationships between job and social-oriented temperaments. He collects and organizes information related to his employability in selected occupational areas and demonstrates skills basic to career placement.

Grade Ten

The student recognizes that some tasks require much responsibility due to safety and cost factors, and identifies jobs he can supervise. He selects potential occupations which he is capable of pursuing and refines skills basic to career placement. He communicates an accurate personal description when responding to job survey instruments as part of a simulated job-seeking task.

Grade Eleven

The student recognizes the advantages and responsibilities of his career choices. He evaluates his chances for success based upon knowledge of the career area and his personal characteristics. He understands the need to cope constructively with insecurity on a new job or the failure to obtain a job.

Grade Twelve

The student meets the requirements necessary for career entry. He applies personal data to potential career situations and communicates effectively with prospective employers.

Kindergarten

The student becomes aware of task completion and simple associated rewards. He becomes aware of some of the ways he differs from others.

Grade One

The student becomes aware that completion of a task may benefit others. He recognizes differences in others and becomes aware of the need for tolerance. He recognizes the rights of others.

Grade Two

The student recognizes his own and others' positive response to task completion. He demonstrates tolerance toward the differences in other people and shows acceptance of them through group experiences.

Grade Three

The student understands that a job well done is rewarded by self-satisfaction and recognition from others. He identifies types of recognition workers receive for performing occupational tasks. He learns things about other people which may help him develop as a person.

Grade Four

The student recognizes that others rely upon him to complete a task. He understands the necessity of accepting persons with differences. He shows interest in the individual skills and abilities of others.

Grade Five

The student becomes aware that relationships between himself and others result from the performance of a job. He accepts persons with individual differences and recognizes their rights and responsibilities. He responds positively to other persons different than himself while working with them.

ATTITUDES AND APPRECIATIONS

Grade Six

The student recognizes that in accepting a task, he also accepts certain responsibilities. He becomes aware of individual differences as they relate to values He understands the rights and responsibilities of others.

Grade Seven

The student becomes aware of the importance of a job to himself and others. He recognizes that the fulfillment of responsibility for an assumed job yields rewards. He understands that tolerance for the differences of other people does not require acceptance of their values.

Grade Eight

The student recognizes relationships between himself and others resulting from the performance of a job and understands that others rely upon him to complete an accepted assignment. He recognizes the different values held by others and that individual differences provide opportunities for personal growth and self-development.

Grade Nine

The student identifies relationships between himself and others resulting from the performance of a job and understands that a job well done is rewarded. He recognizes that individual differences add to his personal growth and development and becomes aware of the psychological variables involved in interpersonal relationships. He recognizes the cultural and socio-economic aspects of individual differences.

Grade Ten

The student understands the value of a job to himself and others and analyzes the value of rewards associated with job performance. He understands that individual differences often contribute to positive relationships.

Grade Eleven

The student recognizes the pattern of values behind job-associated relationships and understands the interdependent nature of these relationships. He can discuss individual differences and argue the right of others to hold attitudes and values different from his own. He understands the psychological variables involved in interpersonal relationships.

Grade Twelve

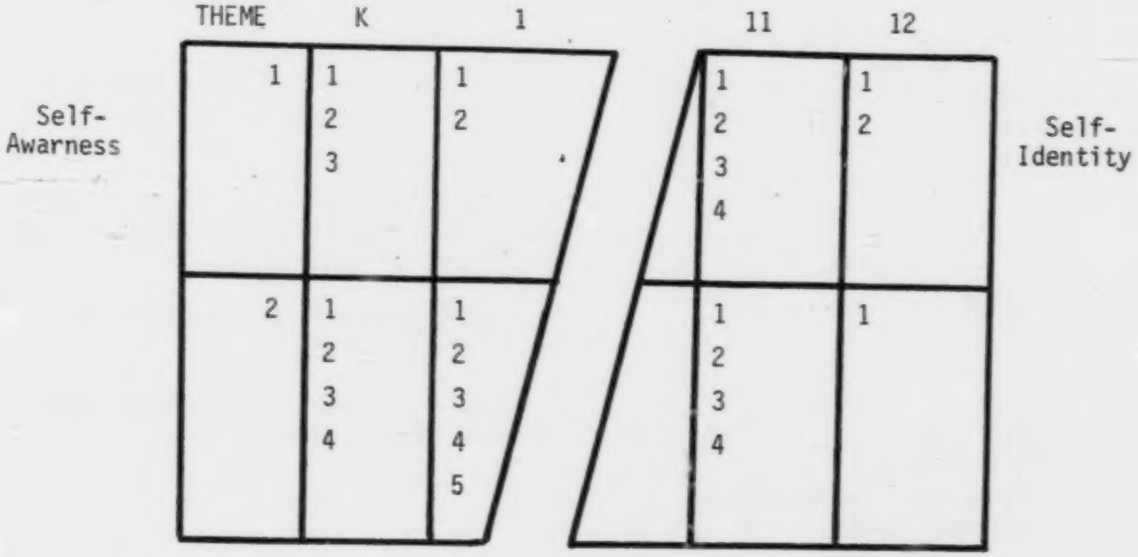
The student utilizes job-associated relationships to the mutual benefit of his associates and himself and values recognition for job accomplishment. He works effectively with others who differ from him in various ways and understands how these differences relate to progress in social, economic, and technological areas.

SECTION II. THE MATRIX--DEVELOPMENTAL PROGRAM GOALS

Pages 45-163 were typed by a 370/155A computer using WYLBUR, a text editing program, in order to provide an opportunity for word frequency analysis and other investigative techniques. The spacing was a function of the computer program which justifies margins automatically.

The Matrix of Developmental Program Goals consists of 416 cells created by 32 themes spread across 13 grade levels. These themes relate to eight broad elements and their outcomes. Each element exemplifies a major idea related to career education. The 32 themes are further represented by goal statements. The goal statements describe what the student is to learn. At grades K-6, the goal statements help the student develop an awareness about career development. Grades 7-9 emphasize career exploration and grades 10-12 aid the student to prepare for his chosen career.

THE MATRIX--DEVELOPMENTAL PROGRAM GOALS



As shown in the diagram, each cell contains one or more goal statements. Each statement is numbered sequentially within a theme by grade level. Identification of a goal statement may be made by indicating grade level, theme number and goal number. For example, 11-2-1 would identify the first goal statement under theme 2 for grade eleven.

Within any particular theme and across grade levels, certain goal statements will appear to be related. Such a series of statements reflect a developmental sequence and may be thought of as a strand. Strands may exist across several grade levels, continuously or in an intermittent fashion. The coding system is not intended for use in identifying these strands.

Self-Awareness

Theme 1

The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals.

1 The student will become aware of his interest in certain toys.

2 The student will become aware of the tasks he performs best.

3 The student will become aware of improvement in his performing physical tasks.

Self-Awareness

Theme 2

The student will learn about himself in relation to his culture through understanding and experiencing roles.

1 The student will recognize the role of each family member.

2 The student will recognize differences between his behavior at home and school.

3 The student will recognize that roles are learned.

4 The student will recognize that role playing is often dependent on others who play complementary roles.

Self-Awareness

Theme 3

The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.

1 The student will become aware of the importance of good habits.

2 The student will become aware of his body.

3 The student will become aware of his body in relation to space.

4 The student will become aware of himself within the context of his family structure.

5 The student will become aware of his feelings.

6 The student will become aware of his uniqueness.

Self-Awareness

Theme 4

The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.

1 The student will become aware of the influences of other people on him.

2 The student will become aware that group membership influences his behavior.

Self-Awareness

Theme 5

The student will recognize that self-knowledge is related to a set or system of values unique to him.

1 The student will become aware of his cultural identity.

2 The student will become aware of cultural and religious differences.

3 The student will become aware that he possesses unique characteristics.

4 The student will become aware that his feelings and the feelings of others relate to values.

Self-Awareness

Theme 6

The student will learn to establish, although tentative, personally relevant goals.

1 The student will become aware that what he produces when he has a goal is frequently different from what happens when he has no goal.

2 The student will set goals in play activities.

3 The student will convert his wants into goals in a playroom setting.

Educational Awareness

Theme 7

The student will recognize that learning is a continuous process occurring in and outside of school.

1 The student will become aware of the experiences he has at school.

2 The student will become aware of the experiences he has outside of school.

Educational Awareness

Theme 8

The student will recognize that educational experiences are a part of his career development.

1 The student will become aware that classroom and outside-of-school experiences may be related.

Educational Awareness

Theme 9

The student will recognize that different career directions require varying types of educational preparation.

1 The student will become familiar with the purpose of his going to school.

2 The student will become aware that reading, writing, and numbers are useful in occupations.

3 The student will become aware that education is required of various occupations.

Educational Awareness

Theme 10

The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.

1 The student will become aware of the relationships between his school and home activities.

2 The student will become aware that a relationship exists between learning and performing various tasks.

3 The student will become aware that the ability to read, write, and count is necessary in most occupations.

Career Awareness

Theme 11

The student will understand the variety of occupations found in the world of work.

1 The student will become aware of work performed in his environment.

2 The student will become aware that people do different things at their work.

Career Awareness

Theme 12

The student will understand the way in which occupations relate to needs and functions of society.

1 The student will recognize the interdependency of family members as workers in the home.

2 The student will recognize the different occupations found in his school.

3 The student will understand how the performance of some occupations meets the needs of the community.

4 The student will describe the work performed by community workers.

5 The student will understand the social value of selected occupations.

Career Awareness

Theme 13

The student will determine the worker qualifications related to performing the basic tasks of various occupations.

1 The student will become aware of the occupational tasks performed by his parents and neighbors.

2 The student will become aware of the different tasks performed by persons working in the school setting.

Career Awareness

Theme 14

The student will recognize that his career development includes progression through stages of educational and occupational experiences.

1 The student will recognize that performance of a task requires preparation.

2 The student will recognize that improved preparation enhances the ability to perform a task.

3 The student will recognize that appropriate preparation enables repeated performance of a task.

Career Awareness

Theme 15

The student will understand the relationship between career and life-style.

1 The student will become familiar with the relationship between a worker's behavior and job success.

2 The student will become aware of the relationship between tasks performed and subsequent behavior.

3 The student will become aware of the influence of basic needs on his behavior in the classroom, home, and community.

Economic Awareness

Theme 16

The student will understand the relationship between personal economics, life-style, and occupational roles.

1 The student will become aware of situations in which deferring immediate benefits may result in greater rewards.

Economic Awareness

Theme 17

The student will understand the range of social and economic benefits associated with various occupations.

1 The student will understand reasons why people work.

Economic Awareness

Theme 18

The student will understand how wealth is accumulated through savings and investments and how it may influence his career and life-style.

1 The student will become aware of the uses of money.

2 The student will become aware of the difference between spending and saving.

3 The student will become aware of banks as places to save money.

Economic Awareness

Theme 19

The student will understand the relationship of his present and anticipated occupational status to economic trends found in his community, state, and nation.

1 The student will become aware of the concept of supply and demand.

2 The student will become aware of the concept of trade and barter.

Decision Making

Theme 20

The student will identify and state personal goals as part of making career decisions.

1 The student will become aware of the relationship between his goals and making choices.

2 The student will state his reason for a choice.

Decision Making

Theme 21

The student will become proficient in identifying and using resource information in making career decisions.

1 The student will become aware that his past experiences provide information.

2 The student will become aware of the information sources to which he is attracted.

3 The student will become aware of the media that interest him most.

Decision Making

Theme 22

The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement a course of action.

1 The student will become aware that he has a choice in some situations.

2 The student will become aware that choice means "making up one's mind."

Beginning Competency

Theme 23

The student will develop the skills required to identify the objectives of a task, specify resources required, outline procedures, perform operations, and evaluate the product.

1 The student will become aware of problem solving.

2 The student will become aware that steps are involved in completing tasks.

Beginning Competency

Theme 24

The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial, and industrial activities.

1 The student will become aware of basic tools used in work.

2 The student will understand the simple properties of various materials.

3 The student will become aware of the importance of safety rules at work.

4 The student will use simple tools.

5 The student will become aware that skills are needed to use tools and materials.

Beginning Competency

Theme 25

The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.

1 The student will identify how behaviors change during work, play, and rest periods.

2 The student will become aware of different relationships he has with people in the classroom.

Beginning Competency

Theme 26

The student will develop educational and occupational competency before moving to the next stage of preparation or entering an occupation in the career area of his choice.

1 The student will develop skills in listening and talking.

2 The student will develop skills in self-expression such as singing, dancing, and coloring.

3 The student will develop skills in discriminating size, shape, color, and other characteristics.

4 The student will develop an awareness of relationships such as more than, less than, equal to, and how many.

5 The student will develop readiness to read.

Beginning Competency

Theme 27

The student will develop the skills necessary for employment in the career area of his choice.

1 The student will use classroom tools and equipment safely.

2 The student will act safely at home and school.

3 The student will develop physical coordination necessary for participation in classroom activities.

Employability Skills

Theme 28

The student will recognize the implications of working, with and without supervision, independently and with others.

1 The student will perform in individual or group settings.

2 The student will understand that various ways may be used to accomplish complex tasks.

Employability Skills

Theme 29

The student will relate information about himself in selecting, learning, or performing duties.

1 The student will relate information about what he is doing.

2 The student will identify his work activities.

Employability Skills

Theme 30

The student will develop the work habits and attitudes necessary to enter an occupation in the career area of his choice.

1 The student will become aware of attitudes and habits that contribute to the consistent performance of tasks.

2 The student will be able to follow directions.

3 The student will share information.

4 The student will become aware of the appropriateness of social skills.

Attitudes and Appreciations

Theme 31

The student will recognize the responsibilities to himself and others when accepting a task or job.

1 The student will become aware of the importance of completing a task.

2 The student will recognize that individual task performance is a part of effective group membership.

3 The student will experience satisfaction and receive recognition from others as a result of performing a task successfully.

Attitudes and Appreciations

Theme 32

The student will recognize individual differences and become tolerant in his interpersonal relationships.

1 The student will become aware of differences in others.

2 The student will respect the feelings of others.

3 The student will become aware of the rights of others.

Self-Awareness

Theme 1

The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals.

1 The student will become aware of his interest in games.

2 The student will become aware of his ability to perform tasks.

Self-Awareness

Theme 2

The student will learn about himself in relation to his culture through understanding and experiencing roles.

1 The student will identify the various roles played by members in his family.

2 The student will recognize the various roles played by his teacher.

3 The student will recognize the various roles he plays.

4 The student will recognize the range of contacts he has with other people.

5 The student will recognize that he learns new role activities.

6 The student will recognize that the presence of others increases his activity possibilities.

Self-Awareness

Theme 3

The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.

1 The student will be aware of the importance of good health in order to perform various activities.

2 The student will become increasingly aware of his body and its relation to space.

3 The student will become aware of himself within the context of his family structure in relation to other students.

4 The student will recognize his feelings.

5 The student will recognize his uniqueness.

Self-Awareness

Theme 4

The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.

1 The student will recognize

that group membership influences his degree of independence.

2 The student will become aware that family and school influence his opportunities and responsibilities.

3 The student will become aware of economic influences on his life-style.

Self-Awareness

Theme 5

The student will recognize that self-knowledge is related to a set or system of values unique to him.

1 The student will recognize cultural differences.

2 The student will recognize that he possesses unique characteristics.

3 The student will recognize that his feelings and the feelings of others relate to values.

Self-Awareness

Theme 6

The student will learn to establish, although tentative, personally relevant goals.

1 The student will recognize that what he produces when he has a goal is frequently different from what happens when he has no goal

2 The student will set goals in a classroom setting.

3 The student will convert his wants into goals in a classroom setting.

Educational Awareness

Theme 7

The student will recognize that learning is a continuous process occurring in and outside-of-school.

1 The student will become aware that people learn.

2 The student will become aware that he is in school to learn.

3 The student will become aware that he may share experiences.

Educational Awareness

Theme 8

The student will recognize that educational experiences are a part of his career development.

1 The student will recognize that classroom and outside of school experiences may be related.

2 The student will become aware

of the relationship between educational experiences and occupational tasks.

Educational Awareness

Theme 9

The student will recognize that different career directions require varying types of educational preparation.

1 The student will become aware of the tasks performed by school staff members.

2 The student will recognize that reading, writing, and numbers are useful in occupations.

3 The student will recognize that education is required for various occupations.

Educational Awareness

Theme 10

The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.

1 The student will recognize that learning helps him do things for himself.

2 The student will recognize that a relationship exists between learning and performing various tasks.

3 The student will recognize that learning to read, write, and count is necessary in most occupations.

Career Awareness

Theme 11

The student will understand the variety of occupations found in the world of work.

1 The student will become aware of the work performed in his community.

2 The student will recognize that workers have different skills.

3 The student will become aware of the tasks performed by school staff members.

Career Awareness

Theme 12

The student will understand the way in which occupations relate to needs and functions of society.

1 The student will recognize the importance of cooperation in the family.

2 The student will recognize how the work of school employees

contributes to the operation of the school.

3 The student will become aware of relationships among occupations within a community.

4 The student will become aware of the places of employment found within his community.

5 The student will recognize that social needs generate occupations.

Career Awareness

Theme 13

The student will determine the worker qualifications related to performing the basic tasks of various occupations.

1 The student will recognize tasks performed by workers within his community.

Career Awareness

Theme 14

The student will recognize that his career development includes progression through stages of educational and occupational experiences.

1 The student will recognize that performance of various tasks requires different preparation.

2 The student will recognize that performance of a task may be preparation for performance of subsequent tasks.

Career Awareness

Theme 15

The student will understand the relationship between career and life-style.

1 The student will recognize that his behavior in the school may affect his progress.

2 The student will recognize that his behavior is related to classroom experiences.

3 The student will become aware of his family's style of living.

4 The student will recognize that his living requirements may change.

Economic Awareness

Theme 16

The student will understand the relationship between personal economics, life-style, and occupational roles.

1 The student will become aware of situations in which deferring benefits may result in greater rewards.

2 The student will become aware

of the initial investments required in order to perform certain jobs.

Economic Awareness

Theme 17

The student will understand the range of social and economic benefits associated with various occupations.

1 The student will recognize that people are paid for work.

2 The student will understand that work brings rewards other than money.

Economic Awareness

Theme 18

The student will understand how wealth is accumulated through savings and investments and how it may influence his career and life-style.

1 The student will become aware of the different forms of money.

2 The student will become aware of reasons for saving money.

3 The student will recognize banks as places to save money.

Economic Awareness

Theme 19

The student will understand the relationship of his present and anticipated occupational status to economic trends found in his community, state, and nation.

1 The student will recognize forms of supply and demand.

2 The student will become aware that people trade with other people.

Decision Making

Theme 20

The student will identify and state personal goals as part of making career decisions.

1 The student will recognize the relationship between his goals and making choices.

2 The student will recognize that reasons for making choices may change.

Decision Making

Theme 21

The student will become proficient in identifying and using resource information in making career decisions.

1 The student will identify his sources of information when making choices.

Decision Making

Theme 22

The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement a course of action.

1 The student will recognize that he has a choice in some situations.

2 The student will become aware of the relationship between reasoning and making choices.

3 The student will become aware of the relationship of having alternatives and making choices.

Beginning Competency

Theme 23

The student will develop the skills required to identify the objectives of a task, specify resources required, outline procedures, perform operations, and evaluate the product.

1 The student will develop an awareness of basic problem solving.

2 The student will become aware that steps are necessary in completing tasks.

3 The student will become aware of his ability to plan.

Beginning Competency

Theme 24

The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial, and industrial activities.

1 The student will recognize the basic tools used in work.

2 The student will understand the various properties of materials.

3 The student will recognize the need to follow safety rules at work.

4 The student will become aware that skills are needed to use tools, equipment, and materials.

Beginning Competency

Theme 25

The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.

1 The student will become aware of the different types of working relationships in the classroom.

2 The student will have an opportunity to demonstrate the affect of given environments on his behavior in interpersonal relationships.

3 The student will become aware of learner-teacher relationships.

Beginning Competency

Theme 26

The student will develop educational and occupational competency before moving to the next stage of preparation or entering an occupation in the career area of his choice.

1 The student will develop skills in reading and arithmetic commensurate with his development and the school curriculum.

2 The student will develop skills in self-expression areas such as art, music and role playing.

3 The student will develop communication skills in writing, listening, and talking.

4 The student will become aware of cause and effect relationships.

Beginning Competency

Theme 27

The student will develop the skills necessary for employment in the career area of his choice.

1 The student will develop the basic skills necessary to maintain good health.

2 The student will include safety as a factor in planning and participating in school activities.

3 The student will develop the physical coordination necessary for participation in school activities.

Employability Skills

Theme 28

The student will recognize the implications of working, with and without supervision, independently and with others.

1 The student will understand the differences between working independently or as a member of a group.

2 The student will understand the ways students can be grouped for classroom activities.

Employability Skills

Theme 29

The student will relate information about himself in selecting, learning, or performing duties.

1 The student will relate information about how well he has performed a task.

2 The student will describe his work activities.

Employability Skills

Theme 30

The student will develop the work habits and attitudes necessary to enter an occupation in the career area of his choice.

1 The student will become aware of the attitudes and habits that effect his performance.

2 The student will follow instructions.

3 The student will share information appropriate to the situation.

4 The student will recognize the importance of using social skills appropriate to the classroom.

Attitudes and Appreciations

Theme 31

The student will recognize the responsibilities to himself and others when accepting a task or job.

1 The student will become aware that completion of a task may benefit others.

2 The student will accept recognition for the completion of assigned tasks.

Attitudes and Appreciations

Theme 32

The student will recognize individual differences and become tolerant in his interpersonal relationships.

1 The student will recognize differences in others.

2 The student will form cooperative relationships.

3 The student will recognize the rights of others.

Self-Awareness

Theme 1

The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals.

1 The student will become aware of his interest in selected activities.

2 The student will become aware of his improved ability to perform tasks.

Self-Awareness

Theme 2

The student will learn about himself in relation to his culture through understanding and experiencing roles.

1 The student will describe elements of roles played by members of his family.

2 The student will describe elements of a teacher's role.

3 The student will describe elements of a student's role.

4 The student will identify roles of those he observes outside the family and classroom.

5 The student will recognize that he regularly learns new roles.

6 The student will recognize that a combination of mutually supportive roles may be necessary for a group to achieve an objective.

7 The student will become aware that he relies upon community members other than his family.

Self-Awareness

Theme 3

The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.

1 The student will become aware that good health aids in performance of physical activities.

2 The student will recognize his body-space relationships.

3 The student will determine characteristics that make him unique.

Self-Awareness

Theme 4

The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.

1 The student will recognize how family and school influence his rights and responsibilities.

Self-Awareness

Theme 5

The student will recognize that self-knowledge is related to a set or system of values unique to him.

1 The student will accept cultural differences.

2 The student will accept himself as a unique person.

3 The student will understand that his feelings and the feelings of others relate to values.

Self-Awareness

Theme 6

The student will learn to establish, although tentative, personally relevant goals.

1 The student will recognize how his production usually differs when he has a goal than when he has none.

2 The student will understand why it is necessary to set goals in the classroom.

3 The student will relate his needs to goals in a classroom setting.

Educational Awareness

Theme 7

The student will recognize that learning is a continuous process occurring in and outside of school.

1 The student will become aware that learning is a continuous process.

2 The student will become aware that there are some things he can teach his classmates.

3 The student will become aware that people learn both in and out of school.

Educational Awareness

Theme 8

The student will recognize that educational experiences are a part of his career development.

1 The student will understand how classroom and outside-of-school experiences may be related.

2 The student will recognize the relationship between educational experiences and occupational tasks.

Educational Awareness

Theme 9

The student will recognize that different career directions require varying types of educational preparation.

1 The student will become aware of the variety of tasks performed at school.

2 The student will recognize that various occupations have different educational requirements.

Educational Awareness

Theme 10

The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.

1 The student will become aware that learning helps people do things for their community, state, and nation.

2 The student will recognize how reading, writing, and counting are used in some occupations.

Career Awareness

Theme 11

The student will understand the variety of occupations found in the world of work.

1 The student will recognize the variety of work performed in his community.

2 The student will become aware of specialized jobs.

Career Awareness

Theme 12

The student will understand the way in which occupations relate to needs and functions of society.

1 The student will recognize the interdependency of school functions and roles of workers in meeting school needs.

2 The student will recognize the interdependency of occupations in maintaining the community.

3 The student will relate career specialties to geographical areas.

4 The student will recognize that some community needs are met by volunteers.

Career Awareness

Theme 13

The student will determine the worker qualifications related to performing the basic tasks of various occupations.

1 The student will become aware of the jobs performed by workers in his community.

Career Awareness

Theme 14

The student will recognize that his career development includes progression through stages of educational and occupational experiences.

1 The student will become aware that over a period of time selected occupations reflect changing patterns of preparation.

2 The student will become aware that adequate preparation for a school task facilitates its performance and improves the outcome.

3 The student will recognize that performance standards are needed for success in a variety of tasks.

Career Awareness

Theme 15

The student will understand the relationship between career and life-style.

1 The student will realize the relationship between a person's work and his behavior outside of work.

2 The student will determine how jobs meet the needs of school workers.

3 The student will recognize that life-style includes many elements.

Economic Awareness

Theme 16

The student will understand the relationship between personal economics, life-style, and occupational roles.

1 The student will become aware of expenses associated with work and school.

2 The student will become aware of the economic aspects of life-style.

Economic Awareness

Theme 17

The student will understand the range of social and economic benefits associated with various occupations.

1 The student will recognize the varied economic rewards gained from different kinds of work.

2 The student will express a preference for personal-social needs and wants.

Economic Awareness

Theme 18

The student will understand how wealth is accumulated through savings and investments and how it may influence his career and life-style.

1 The student will understand the concepts of earning and spending.

2 The student will become aware that banks pay people for saving money.

Economic Awareness

Theme 19

The student will understand the relationship of his present and anticipated occupational status to economic trends found in his community, state, and nation.

1 The student will become aware of an economic relationship between himself and his family.

Decision Making

Theme 20

The student will identify and state personal goals as part of making career decisions.

1 The student will recognize that setting personal goals in school necessitates decision making.

2 The student will understand that his personal and physical characteristics influence his personal goals and career decisions.

Decision Making

Theme 21

The student will become proficient in identifying and using resource information in making career decisions.

1 The student will identify commonalities and differences in jobs held by family members and neighbors.

2 The student will identify and use sources of information about

jobs in his neighborhood and community.

Decision Making

Theme 22

The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement a course of action.

1 The student will become aware that he makes decisions that affect others.

2 The student will recognize that his decisions may not be accepted by others.

3 The student will recognize that personal factors which influence his decisions may vary.

4 The student will become aware that he is responsible for his goals.

Beginning Competency

Theme 23

The student will develop the skills required to identify the objectives of a task, specify resources required, outline procedures, perform operations, and evaluate the product.

1 The student will recognize problem-solving techniques needed in school.

2 The student will become aware that skills develop over time, from simple to complex.

Beginning Competency

Theme 24

The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial, and industrial activities.

1 The student will recognize the basic tools, equipment, and materials used in work.

2 The student will understand the various properties of tools, equipment, and materials.

3 The student will recognize that skills and practice are needed to use tools, equipment, and materials safely.

Beginning Competency

Theme 25

The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.

1 The student will become aware of the interpersonal behavior appropriate to various work settings.

Beginning Competency

Theme 26

The student will develop educational and occupational competency before moving to the next stage of preparation or entering an occupation in the career area of his choice.

1 The student will continue to develop communication skills.

2 The student will develop critical thinking skills relative to cause and effect relationships.

3 The student will increase his learning of basic computational skills.

4 The student will learn to locate and organize information.

5 The student will exhibit readiness to read in relation to his educational development.

Beginning Competency

Theme 27

The student will develop the skills necessary for employment in the career area of his choice.

1 The student will continue to develop the physical coordination necessary to participate in school activities.

Employability Skills

Theme 28

The student will recognize the implications of working, with and without supervision, independently and with others.

1 The student will recognize how his preference for certain activities often depends upon his desire to work alone or with others.

Employability Skills

Theme 29

The student will relate information about himself in selecting, learning, or performing duties.

1 The student will relate his qualifications for tasks at home, school, and in the community.

Employability Skills

Theme 30

The student will develop the work habits and attitudes necessary to enter an occupation in the career area of his choice.

1 The student will recognize the importance of attitudes and habits in performing assigned tasks.

Attitudes and Appreciations

Theme 31

The student will recognize the responsibilities to himself and others when accepting a task or job.

1 The student will experience personal satisfaction and receive recognition by accomplishing school activities.

2 The student will recognize his responsibility for completing certain tasks.

Attitudes and Appreciations

Theme 32

The student will recognize individual differences and become tolerant in his interpersonal relationships.

1 The student will recognize the rights of others.

2 The student will demonstrate acceptance of others through group experiences.

Self-Awareness

Theme 1

The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals.

1 The student will become aware of his strengths and weaknesses in performing learning tasks.

Self-Awareness

Theme 2

The student will learn about himself in relation to his culture through understanding and experiencing roles.

1 The student will recognize that members of his family play roles to solve problems and achieve goals.

2 The student will recognize that people with the same role assignments may perform role responsibilities similarly.

3 The student will learn that the complementary roles of others help him learn and perfect roles.

Self-Awareness

Theme 3

The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.

1 The student will become aware of the relationships among exercise, rest, nutrition, and physical development.

2 The student will learn to express his feelings in a socially acceptable manner.

3 The student will become aware of himself in relation to his community.

Self-Awareness

Theme 4

The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.

1 The student will become aware that participation in various groups influences his personal development.

Self-Awareness

Theme 5

The student will recognize that self-knowledge is related to a set or system of values unique to him.

1 The student will understand

how cultural differences develop.

2 The student will become aware that all people possess unique characteristics.

3 The student will become aware that his feelings are unique.

Self-Awareness

Theme 6

The student will learn to establish, although tentative, personally relevant goals.

1 The student will recognize why his production usually differs when he has a goal than when he has none.

2 The student will explain how he sets goals.

3 The student will identify some long range goals.

Educational Awareness

Theme 7

The student will recognize that learning is a continuous process occurring in and outside of school.

1 The student will relate what he learns from one day to the next.

2 The student will recognize out-of-school learning experiences.

3 The student will become aware that learning continues throughout his lifetime.

Educational Awareness

Theme 8

The student will recognize that educational experiences are a part of his career development.

1 The student will recognize relationships between education and career preparation.

Educational Awareness

Theme 9

The student will recognize that different career directions require varying types of educational preparation.

1 The student will recognize how communications, mathematics, science, and social studies are used in some jobs.

Educational Awareness

Theme 10

The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.

1 The student will understand that a relationship exists between education and careers.

2 The student will recognize the relationship between performance in basic subjects and selection of specific careers.

Career Awareness

Theme 11

The student will understand the variety of occupations found in the world of work.

1 The student will become aware of the variety of occupations in the world of work.

2 The student will understand the need for job specialization within the world of work.

3 The student will recognize types of jobs within occupations.

Career Awareness

Theme 12

The student will understand the way in which occupations relate to needs and functions of society.

1 The student will become aware of careers that are necessary for community maintenance.

2 The student will become aware of occupations as related to geographical areas and job mobility.

Career Awareness

Theme 13

The student will determine the worker qualifications related to performing the basic tasks of various occupations.

1 The student will recognize general characteristics which relate to those pursuing a particular occupation.

Career Awareness

Theme 14

The student will recognize that his career development includes progression through stages of educational and occupational experiences.

1 The student will recognize elements in preparation patterns for specific occupations.

2 The student will become aware that preparation for a job may be related to success and satisfaction.

3 The student will become aware

that present school experiences are related to future job experiences.

4 The student will become aware that job entry level qualifications are usually based on the performance competencies needed.

Career Awareness

Theme 15

The student will understand the relationship between career and life-style.

1 The student will recognize the relationship between a worker's behavior at home and on the job.

2 The student will recognize elements of life-style.

Economic Awareness

Theme 16

The student will understand the relationship between personal economics, life-style, and occupational roles.

1 The student will recognize the economic necessity of planning with respect to work and school.

2 The student will recognize the economic aspects of life-style.

Economic Awareness

Theme 17

The student will understand the range of social and economic benefits associated with various occupations.

1 The student will understand that economic rewards for work may satisfy needs and wants.

2 The student will understand that social needs and wants differ among individuals.

3 The student will become aware of the personal and social rewards of various occupations.

Economic Awareness

Theme 18

The student will understand how wealth is accumulated through savings and investments and how it may influence his career and life-style.

1 The student will become aware of economic concepts such as buying, selling, saving, and borrowing.

2 The student will become aware of financial institutions other than banks.

3 The student will become aware of a relationship between economic capabilities and career.

Economic Awareness

Theme 19

The student will understand the relationship of his present and anticipated occupational status to economic trends found in his community, state, and nation.

1 The student will become aware of economic cycles in his family.

2 The student will become aware of an economic relationship between himself and his family and community.

3 The student will become aware of economic trends.

Decision Making

Theme 20

The student will identify and state personal goals as part of making career decisions.

1 The student will become aware that goals made in school affect decisions outside of school.

2 The student will recognize the need to make decisions.

3 The student will recognize that his characteristics may influence his occupational choices.

Decision Making

Theme 21

The student will become proficient in identifying and using resource information in making career decisions.

1 The student will gather information about jobs to solve problems and answer questions.

2 The student will understand that his sources of information may not be accurate.

Decision Making

Theme 22

The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement a course of action.

1 The student will become aware that decision making involves taking risks.

2 The student will identify alternative ways to accomplish goals.

Beginning Competency

Theme 23

The student will develop the skills required to identify the objectives of a task, specify resources required, outline procedures, perform operations, and evaluate the product.

1 The student will become aware that problem solving techniques are needed in various jobs.

2 The student will plan simple tasks using familiar resources.

3 The student will become aware that different resources may be required at various steps in skill development.

Beginning Competency

Theme 24

The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial, and industrial activities.

1 The student will become aware that tools, equipment, and materials require special care and maintenance.

2 The student will understand that some tasks require the use of specially designed tools, equipment, and materials.

Beginning Competency

Theme 25

The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.

1 The student will become aware of the levels of responsibility associated with different occupations.

2 The student will recognize that levels of responsibility are partly a function of one's environment.

Beginning Competency

Theme 26

The student will develop educational and occupational competency before moving to the next stage of preparation or entering an occupation in the career area of his choice.

1 The student will begin to develop a vocational vocabulary.

2 The student will develop cognitive skills for problem identification.

3 The student will develop and apply basic computational skills.

4 The student will apply the skills necessary to locate and organize information.

5 The student will read at a level commensurate with his physical maturation and educational development.

Beginning Competency

Theme 27

The student will develop the skills necessary for employment in the career area of his choice.

1 The student will understand the importance of communication skills at home and school.

2 The student will develop responsible safety habits at work and play.

3 The student will develop physical ability and coordination appropriate to his age and maturity.

Employability Skills

Theme 28

The student will recognize the implications of working, with and without supervision, independently and with others.

1 The student will recognize that supervision may help him accomplish tasks easier.

2 The student will understand that cooperation on some tasks makes the job easier.

Employability Skills

Theme 29

The student will relate information about himself in selecting, learning, or performing duties.

1 The student will relate his characteristics to tasks he performs at home, school, or in the community.

2 The student will develop communication skills by following directions and directing others in task accomplishment.

Employability Skills

Theme 30

The student will develop the work habits and attitudes necessary to enter an occupation in the career area of his choice.

1 The student will understand responsibility and the importance of completing assigned tasks.

Attitudes and Appreciations

Theme 31

The student will recognize the responsibilities to himself and others when accepting a task or job.

1 The student will appreciate the value of completing certain tasks.

2 The student will identify types of recognition received by workers for performing occupational tasks.

Attitudes and Appreciations

Theme 32

The student will recognize individual differences and become tolerant in his interpersonal relationships.

1 The student will recognize good things about others which help him develop as a person.

2 The student will demonstrate appreciation of others through group experiences.

Self-Awareness

Theme 1

The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals.

1 The student will become aware of the difference between interests and aptitudes.

2 The student will become aware of his interest in both school and community activities.

Self-Awareness

Theme 2

The student will learn about himself in relation to his culture through understanding and experiencing roles.

1 The student will use the term "role" when referring to a position in a group or an organization.

2 The student will identify major types of roles.

3 The student will recognize that the expectations of other people influence his behavior.

Self-Awareness

Theme 3

The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.

1 The student will become aware of the relationship between health and physical development.

2 The student will identify his personal characteristics.

3 The student will identify ways in which he is emotionally like and different from his peers.

Self-Awareness

Theme 4

The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.

1 The student will become aware of the rights and responsibilities he has within various groups.

2 The student will recognize the influence that participation in various groups has upon his development.

3 The student will become aware that he is a part of his environment.

Self-Awareness

Theme 5

The student will recognize that self-knowledge is related to a set or system of values unique to him.

1 The student will become aware of a sensitivity to other people regardless of race, creed, color, or ethnic background.

2 The student will will identify his cultural values and their origins.

3 The student will become aware that he has a unique combination of interests.

Self-Awareness

Theme 6

The student will learn to establish, although tentative, personally relevant goals.

1 The student will recognize the different consequences of goal-directed activities and undirected activities in a classroom setting.

2 The student will demonstrate a knowledge of his goals.

3 The student will recognize the importance of setting priorities in learning classroom subjects.

4 The student will become aware that he can influence his destiny.

5 The student will become aware of the value of acting independently to achieve some goals.

6 The student will become aware that he can change the focus of his goals from immediate to longer range.

Educational Awareness

Theme 7

The student will recognize that learning is a continuous process occurring in and outside of school.

1 The student will understand that learning is based in part on prior experiences.

2 The student will become aware of the connection between in-school and out-of-school learning experiences.

3 The student will develop knowledge of how older people continue learning.

Educational Awareness

Theme 8

The student will recognize that educational experiences are a part of his career development.

1 The student will recognize

that participation in school classes and activities may relate to his use of time throughout life.

Educational Awareness

Theme 9

The student will recognize that different career directions require varying types of educational preparation.

1 The student will develop an understanding of how communications, mathematics, science, and social studies skills are used in selected occupations.

2 The student will become familiar with the relationship between in-school experiences and career directions.

Educational Awareness

Theme 10

The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.

1 The student will become aware of the importance of education of people to the community, state, and nation.

2 The student will identify the relationship between his skills and those used by workers.

3 The student will realize how and why reading, writing, number skills, and science are used in some jobs.

Career Awareness

Theme 11

The student will understand the variety of occupations found in the world of work.

1 The student will become aware of the variety of jobs in the community and region.

2 The student will become aware of the existence and importance of the interdependency of jobs.

Career Awareness

Theme 12

The student will understand the way in which occupations relate to needs and functions of society.

1 The student will understand the interdependence of occupations to fulfill the goals, needs, and functions within a community.

2 The student will recognize the relationship between geography and the location of careers and people.

Career Awareness

Theme 13

The student will determine the worker qualifications related to performing the basic tasks of various occupations.

1 The student will become aware of work performed in occupations in his community.

2 The student will become aware of the relationship between worker requirements and personal traits.

Career Awareness

Theme 14

The student will recognize that his career development includes progression through stages of educational and occupational experiences.

1 The student will recognize that some jobs have specific but common requirements for job success.

2 The student will recognize the role of present school experiences in preparation for career performance.

3 The student will identify basic responsibilities and performance standards which are necessary to succeed in any career.

4 The student will recognize valid and invalid factors in defining career opportunities.

5 The student will become aware that career changes are possible.

Career Awareness

Theme 15

The student will understand the relationship between career and life-style.

1 The student will establish a preferred life-style.

2 The student will recognize the relationships of careers and associated life-styles.

3 The student will become aware of working conditions in selected career areas.

4 The student will realize that all careers offer rewards.

Economic Awareness

Theme 16

The student will understand the relationship between personal economics, life-style, and occupational roles.

1 The student will become aware of his responsibility in making accommodations for his future.

2 The student will become aware of the relationships between

desired life-styles and career monetary rewards.

Economic Awareness

Theme 17

The student will understand the range of social and economic benefits associated with various occupations.

1 The student will become aware of his social and economic needs.

2 The student will recognize some social and economic needs of others.

3 The student will recognize that rewards usually go to those who extend the effort to gain them.

Economic Awareness

Theme 18

The student will understand how wealth is accumulated through savings and investments and how it may influence his career and life-style.

1 The student will use money-substitutes.

2 The student will extend his knowledge of financial institutions and their services.

3 The student will become aware that changing jobs requires economic planning.

4 The student will understand that credit costs will be a part of a credit purchase.

5 The student will extend his knowledge of needs versus wants.

6 The student will become aware of a relationship between economic and career security.

7 The student will become aware of a relationship between economic security and life-style.

8 The student will become aware of real property as an investment.

9 The student will become aware of the need for planning when buying, selling, saving, and borrowing.

Economic Awareness

Theme 19

The student will understand the relationship of his present and anticipated occupational status to economic trends found in his community, state, and nation.

1 The student will become aware of the economic cycles in his community.

2 The student will develop knowledge of the economic relationship between himself, family, and community.

3 The student will become aware of economic planning as a means of preparing for the expected and the unexpected.

Decision Making

Theme 20

The student will identify and state personal goals as part of making career decisions.

1 The student will recognize that making decisions is a part of being a member of various defined social groups.

2 The student will understand that his needs and relationships with others, influence his goals and career decisions.

Decision Making

Theme 21

The student will become proficient in identifying and using resource information in making career decisions.

1 The student will read, organize, and draw conclusions from given problem statements.

2 The student will define problems associated with the study of workers and jobs in cities and communities around the world.

Decision Making

Theme 22

The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement a course of action.

1 The student will identify factors that limit his choices.

2 The student will recognize the steps of the decision-making process.

3 The student will recognize the characteristics of decision-making situations.

4 The student will recognize that gratification is associated with decision making.

5 The student will recognize that gratification, need, reward, and punishment influence decision making.

6 The student will recognize cause and effect relationships in decisions.

7 The student will recognize that his decisions can precipitate chain reactions.

8 The student will identify the influence of personal goals and values on his decisions.

9 The student will recognize that personal characteristics influence decisions.

10 The student will recognize

how his values involving other people affect his decisions.

11 The student will recognize the types of stress that influence decisions.

Beginning Competency

Theme 23

The student will develop the skills required to identify the objectives of a task, specify resources required, outline procedures, perform operations, and evaluate the product.

1 The student will become aware of process skills and techniques of problem solving necessary for everyday functioning.

2 The student will become aware of the development of a skill from its simple to complex aspects.

3 The student will plan tasks considering necessary time, tools, and materials needed for their completion.

Beginning Competency

Theme 24

The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial, and industrial activities.

1 The student will become aware of the variety of tools, equipment, and materials needed to perform various tasks.

2 The student will become aware of the need to understand the various properties of tools, equipment, and materials.

3 The student will understand the need for safety as related to tools, equipment, and materials.

4 The student will demonstrate the safe use of simple tools, equipment, and materials in the classroom.

5 The student will recognize the competency or expertise needed to use tools, equipment, and materials.

Beginning Competency

Theme 25

The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.

1 The student will recognize how a responsibility level influences behavior in interpersonal relationships.

2 The student will recognize that authority is a function of a responsibility level.

Beginning Competency

Theme 26

The student will develop educational and occupational competency before moving to the next stage of preparation or entering an occupation in the career area of his choice.

1 The student will develop communication skills.

2 The student will refine cognitive skills for problem identification.

3 The student will develop additional basic computational skills.

4 The student will understand the skills necessary to locate and organize information.

5 The student will read at an increasingly advanced level commensurate with his physical maturation and educational development.

Beginning Competency

Theme 27

The student will develop the skills necessary for employment in the career area of his choice.

1 The student will demonstrate the importance of communication skills.

2 The student will recognize that communication encompasses a variety of media and techniques.

3 The student will recognize the need for habits at work and at play.

4 The student will develop increased physical ability and coordination appropriate to his age and maturity.

Employability Skills

Theme 28

The student will recognize the implications of working, with and without supervision, independently and with others.

1 The student will become aware of different styles of direction and how he responds to each style.

2 The student will understand that members of a group may accomplish tasks by having each person specialize on a particular part.

3 The student will recognize the association between volunteering for a task and responsibility for its completion.

4 The student will understand the difference between social groups and task groups.

2

Employability Skills

Theme 29

The student will relate information about himself in selecting, learning, or performing duties.

1 The student will communicate information about his qualifications, aptitudes, and interests as they relate to local jobs.

2 The student will record his work activities at home and at school.

3 The student will select an occupation that he is capable of pursuing.

4 The student will select and complete a school task for which he is qualified.

Employability Skills

Theme 30

The student will develop the work habits and attitudes necessary to enter an occupation in the career area of his choice.

1 The student will apply his understanding of responsibility and punctuality to given situations.

2 The student will understand why the ability to follow oral and written instructions is important.

3 The student will understand and apply social skills to different situations.

4 The student will understand the effect of personal appearance and behavior on other people.

Attitudes and Appreciations

Theme 31

The student will recognize the responsibilities to himself and others when accepting a task or job.

1 The student will appreciate the value and importance of a task to himself and others.

2 The student will recognize that a task well done is rewarded by self-satisfaction and recognition from others.

3 The student will become aware that others rely upon him to complete an accepted task.

Attitudes and Appreciations

Theme 32

The student will recognize individual differences and become tolerant in his interpersonal relationships.

1 The student will recognize the skills, abilities, rights, and responsibilities of others.

Self-Awareness

Theme 1

The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals.

1 The student will become aware of the influence of interests and aptitudes upon his functioning in and out of school.

2 The student will differentiate between himself and others in terms of interests, aptitudes, and achievements in and out of school.

Self-Awareness

Theme 2

The student will learn about himself in relation to his culture through understanding and experiencing roles.

1 The student will recognize that as a role is learned he can play that role without thinking about it.

2 The student will recognize that groups consist of cooperating role players and that he has the responsibility for performing his role if his group is to achieve its objectives.

3 The student will recognize that role playing in society is a cooperative process that supports the way of life of each individual.

Self-Awareness

Theme 3

The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.

1 The student will become aware of the relationship between physical development and the ability to develop physical skills.

2 The student will examine facets of his personal behavior.

3 The student will examine some aspects of how he relates to others.

Self-Awareness

Theme 4

The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.

1 The student will understand the influence that participation in various groups has upon his development.

2 The student will become aware

that changes in him influence his environment and that changes in environment influence him.

3 The student will become aware that the values of other people influence his values.

Self-Awareness

Theme 5

The student will recognize that self-knowledge is related to a set or system of values unique to him.

1 The student will identify a sensitivity to other people regardless of race, creed, color, or ethnic background.

2 The student will identify that he has a unique combination of interests.

3 The student will become aware of his feelings and the feelings of others as they relate to commonly held beliefs and customs.

Self-Awareness

Theme 6

The student will learn to establish, although tentative, personally relevant goals.

1 The student will recognize the different consequences of goal-directed activities and undirected activities.

2 The student will become aware of the importance of setting priorities in developing goals.

3 The student will recognize that he can influence his destiny.

4 The student will recognize that he can act independently to achieve some goals.

5 The student will understand that he can change the focus of his goals from immediate to longer range.

6 The student will become aware that his self-image will affect his goals.

Educational Awareness

Theme 7

The student will recognize that learning is a continuous process occurring in and outside of school.

1 The student will develop knowledge of the relationship between in-school and out-of-school learning.

2 The student will understand that people learn throughout their lifetimes.

3 The student will become aware that what he learns becomes a permanent part of his knowledge.

Educational Awareness

Theme 8

The student will recognize that educational experiences are a part of his career development.

1 The student will understand how participation in school classes and activities can relate to his use of time throughout life.

2 The student will understand relationships between educational experiences and career selection and development.

Educational Awareness

Theme 9

The student will recognize that different career directions require varying types of educational preparation.

1 The student will understand the relationship between in-school experiences and career directions.

Educational Awareness

Theme 10

The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.

1 The student will recognize the importance of the education of every person to the community, state, and nation.

2 The student will relate skills learned in the classroom to those skills used by workers.

Career Awareness

Theme 11

The student will understand the variety of occupations found in the world of work.

1 The student will identify job variations in the community.

2 The student will understand the relationship between specialization of labor and production.

Career Awareness

Theme 12

The student will understand the way in which occupations relate to needs and functions of society.

1 The student will observe the way in which occupations are interdependent in fulfilling community needs and goals.

2 The student will become aware

of job variations in the community and state.

3 The student will recognize that social institutions and organizations maintain and generate careers.

Career Awareness

Theme 13

The student will determine the worker qualifications related to performing the basic tasks of various occupations.

1 The student will become aware that success in specific occupations depends upon specific performance abilities.

2 The student will become aware that success in occupations necessitates the development of related competencies that require training.

Career Awareness

Theme 14

The student will recognize that his career development includes progression through stages of educational and occupational experiences.

1 The student will recognize that some jobs have specific requirements for success.

2 The student will identify the relationships between specific jobs and school experiences and understand the implications for future jobs.

3 The student will demonstrate responsibilities and performance standards for general vocational situations.

4 The student will demonstrate that responsibilities and performance standards for any job are discrete from racial, ethnic, religious, and sex factors.

5 The student will recognize that career changes are the result of a variety of factors.

6 The student will become aware that new careers arise and existing careers terminate with the passage of time.

Career Awareness

Theme 15

The student will understand the relationship between career and life-style.

1 The student will recognize the relationships of careers and associated life-styles.

2 The student will evaluate different careers on the basis of their associated life-styles as they relate to his desired life-style.

3 The student will experience different working conditions.

4 The student will realize that career rewards play an important function in society.

Economic Awareness

Theme 16

The student will understand the relationship between personal economics, life-style, and occupational roles.

1 The student will recognize his responsibility in making accommodations for his future.

2 The student will become aware of life-style needs and career rewards.

Economic Awareness

Theme 17

The student will understand the range of social and economic benefits associated with various occupations.

1 The student will relate occupational roles to the concept of economic benefit.

2 The student will relate occupational roles to the concept of social benefit.

3 The student will understand that social and economic needs and wants differ among people.

Economic Awareness

Theme 18

The student will understand how wealth is accumulated through savings and investments and how it may influence his career and life-style.

1 The student will expand his knowledge of financial institutions and evaluate their services.

2 The student will develop knowledge of economic planning requirements within a career.

3 The student will understand basic differences between necessities and luxuries.

4 The student will become aware that credit is granted under certain conditions.

5 The student will develop knowledge of the relationship between economic security and career security.

6 The student will develop knowledge of the relationship between economic security and life-style.

7 The student will develop knowledge about non-salary earnings.

8 The student will become aware of budgeting as a money-management tool.

9 The student will understand differences among investment methods.

10 The student will become

aware of a relationship between economic and life-style security.

Economic Awareness

Theme 19

The student will understand the relationship of his present and anticipated occupational status to economic trends found in his community, state, and nation.

1 The student will develop knowledge of local economic cycles.

2 The student will develop appreciation for economic planning.

Decision Making

Theme 20

The student will identify and state personal goals as part of making career decisions.

1 The student will recognize that making decisions is required to meet personal goals.

2 The student will understand that personal interests, aptitudes, skills, and physical characteristics influence his goals and career decisions.

Decision Making

Theme 21

The student will become proficient in identifying and using resource information in making career decisions.

1 The student will obtain information about jobs which interest him and for which he seems to have the aptitude based upon his current knowledge and feelings.

2 The student will identify resources related to questions concerning careers in his community.

3 The student will collect information related to jobs in his community.

4 The student will develop questions related to the study of occupations in his community.

5 The student will use the resource information gathered in a study of careers in his community.

Decision Making

Theme 22

The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement a course of action.

1 The student will recognize that his sphere of decision making is expanding.

2 The student will recognize that feedback influences decision making.

3 The student will demonstrate competency in the skills of decision making by solving problems.

4 The student will become aware that decisions are not always planned but sometimes made impulsively.

5 The student will recognize how types of gratification and rewards relate to decision making.

6 The student will evaluate the results of his decisions.

7 The student will recognize that personal characteristics influence decisions.

8 The student will become aware that peers can influence his decisions.

9 The student will recognize that decisions will be based on feelings, values, and information existent at the moment of decision.

Beginning Competency

Theme 23

The student will develop the skills required to identify the objectives of a task, specify resources required, outline procedures, perform operations, and evaluate the product.

1 The student will recognize process skills and techniques of problem solving necessary for everyday functioning.

2 The student will recognize the development of a skill from its simple to complex aspects.

3 The student will become familiar with the requirements of task-planning.

Beginning Competency

Theme 24

The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial, and industrial activities.

1 The student will recognize the variety of tools, equipment, and materials needed to perform various tasks.

2 The student will recognize the need to understand the various properties of tools, equipment, and materials.

3 The student will identify the need for safety as related to tools, equipment, and materials.

4 The student will use simple tools, equipment, and materials in a safe manner.

5 The student will understand

the competency or expertise needed to use tools, equipment, and materials.

Beginning Competency

Theme 25

The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.

1 The student will identify appropriate behavior toward persons with various levels of responsibility.

Beginning Competency

Theme 26

The student will develop educational and occupational competency before moving to the next stage of preparation or entering an occupation in the career area of his choice.

1 The student will develop increasingly complex communication skills.

2 The student will develop cognitive skills associated with the scientific method.

3 The student will use basic computational skills.

4 The student will use the skills necessary to locate and organize information.

5 The student will read various types of materials commensurate with his physical maturation and educational development.

Beginning Competency

Theme 27

The student will develop the skills necessary for employment in the career area of his choice.

1 The student will recognize the place of interpretation in communication.

2 The student will refine basic communication skills.

3 The student will understand the need for safe habits at work and play.

4 The student will use physical ability and coordination in a variety of activities.

5 The student will become aware of the need for different physical skills in various career areas.

Employability Skills

Theme 28

The student will recognize the implications of working, with and without supervision, independently and with others.

1 The student will demonstrate that he can function in either an individual or group task setting.

2 The student will understand that tasks involve various combinations of data, people, and things and that he may prefer a particular type of task.

3 The student will apply his preference for group or individual work.

Employability Skills

Theme 29

The student will relate information about himself in selecting, learning, or performing duties.

1 The student will identify his qualifications, aptitudes, and interests as they relate to jobs in the community.

2 The student will identify reasons for his preferences in work activities at home and school.

3 The student will identify occupations appropriate to his level of ability.

4 The student will apply qualifications and preferences to the selection and completion of a task.

Employability Skills

Theme 30

The student will develop the work habits and attitudes necessary to enter an occupation in the career area of his choice.

1 The student will become aware of the personal attitudes and work habits associated with certain occupations.

2 The student will become aware of the relationship of personal appearance and attitudes to employability.

3 The student will become aware of those social skills necessary to become an employable person.

4 The student will become aware of the relationship between task achievement and task organization.

Attitudes and Appreciations

Theme 31

The student will recognize the responsibilities to himself and others when accepting a task or job.

1 The student will become aware of relationships between himself and others resulting from the performance of a task.

Attitudes and Appreciations

Theme 32

The student will recognize individual differences and become tolerant in his interpersonal relationships.

1 The student will recognize that there can be interpersonal relationships between persons with basic differences.

2 The student will recognize the rights and responsibilities of others even though their ideas may be different.

3 The student will recognize individual differences in skills and abilities of others.

Self-Awareness

Theme 1

The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals.

1 The student will differentiate between interests, aptitudes, and achievements.

2 The student will analyze his strengths and weaknesses, likes and dislikes, and achievements in terms of causation.

3 The student will become aware of the relationship between interests, aptitudes, achievements, and occupations.

Self-Awareness

Theme 2

The student will learn about himself in relation to his culture through understanding and experiencing roles.

1 The student will recognize the increasing number of roles he has learned to play.

2 The student will recognize that he generally responds in a given way to all people who play the same role.

3 The student will use roles as a means of understanding a person and predicting his behavior.

4 The student will recognize that playing a complementary role is a major way of teaching someone else to play a role.

5 The student will recognize the possibility of role conflicts.

Self-Awareness

Theme 3

The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.

1 The student will become aware of the need to understand the relationship between health and physical development.

2 The student will explore his ability to handle cognitive tasks.

3 The student will explore his performances in psychomotor tasks.

4 The student will become aware of some of his important values and the sources of these values.

5 The student will understand the need to improve his relationships with others.

Self-Awareness

Theme 4

The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.

1 The student will recognize that changes in him influence his environment, and that changes in environment influence him.

2 The student will become aware that other people influence his personal goals.

Self-Awareness

Theme 5

The student will recognize that self-knowledge is related to a set or system of values unique to him.

1 The student will recognize a sensitivity to other people regardless of race, creed, color, or ethnic background.

2 The student will analyze and become selective about his beliefs in terms of his peer group.

3 The student will understand that he has a unique combination of interests.

4 The student will analyze emotional growth in relation to himself and his peer group.

Self-Awareness

Theme 6

The student will learn to establish, although tentative, personally relevant goals.

1 The student will recognize that he performs differently when his activities are not related to a goal and when his activities are related to a goal.

2 The student will recognize that setting priorities is an important part of setting and reaching goals.

3 The student will understand that he can influence his destiny.

4 The student will act independently to achieve some goals.

5 The student will focus on both short and long-range goals.

6 The student will identify that his self-image will affect his goals.

Educational Awareness

Theme 7

The student will recognize that learning is a continuous process occurring in and outside of school.

1 The student will understand that school provides only a part

of his learning experience.

2 The student will develop understanding of the relationship between learning and knowing.

3 The student will become aware that desire and capability to learn influence his learning.

Educational Awareness

Theme 8

The student will recognize that educational experiences are a part of his career development.

1 The student will identify school classes and activities that may relate to his use of time throughout life.

2 The student will understand relationships between educational experiences and career preparation.

Educational Awareness

Theme 9

The student will recognize that different career directions require varying types of educational preparation.

1 The student will develop an understanding of the different types of educational preparation required for various occupations.

Educational Awareness

Theme 10

The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.

1 The student will become aware of the relationship between schools and career opportunities during the course of history.

2 The student will understand that environmental factors effect employment conditions and career choices.

Career Awareness

Theme 11

The student will understand the variety of occupations found in the world of work.

1 The student will identify and classify local jobs.

2 The student will identify characteristics which differentiate between jobs.

Career Awareness

Theme 12

The student will understand the way in which occupations relate to needs and functions of society.

1 The student will identify the interrelationships of jobs to fulfill the needs and functions of society.

2 The student will identify areas where career specialties evolved due to geographical location.

3 The student will recognize the importance of social institutions and organizations in maintaining and generating careers.

Career Awareness

Theme 13

The student will determine the worker qualifications related to performing the basic tasks of various occupations.

1 The student will become aware that success in specific occupations is related to specific personal traits and preferences.

2 The student will understand the relationship between success in occupations and related competencies, training, and learning experiences.

3 The student will become aware of the relationship between organized activities and success in specific occupations.

Career Awareness

Theme 14

The student will recognize that his career development includes progression through stages of educational and occupational experiences.

1 The student will relate specific requirements for job success to various situations.

2 The student will recognize the use of specific job-related competencies learned in and out of school to successful performance in a specific job.

3 The student will apply responsibilities and performance standards to specific situations.

4 The student will recognize the career changes that are possible.

5 The student will recognize that careers may terminate as a result of knowledge and technology.

Career Awareness

Theme 15

The student will understand the relationship between career and life-style.

1 The student will recognize the implications of holding a job.

2 The student will understand the concept of life-style and its effect on career selection.

3 The student will become aware of the potential rewards associated with various occupations.

Economic Awareness

Theme 16

The student will understand the relationship between personal economics, life-style, and occupational roles.

1 The student will understand his responsibility in making accommodations for his future.

2 The student will recognize the relationship between life-style needs and career rewards.

Economic Awareness

Theme 17

The student will understand the range of social and economic benefits associated with various occupations.

1 The student will recognize the contributions organizations have made toward increasing economic benefits for people.

2 The student will understand some factors which have caused social and economic benefits to differ among occupations.

Economic Awareness

Theme 18

The student will understand how wealth is accumulated through savings and investments and how it may influence his career and life-style.

1 The student will become aware that financial institutions offer specialized services.

2 The student will become aware that his career can be influenced by economic necessity.

3 The student will become aware that credit buying involves making choices.

4 The student will expand his knowledge about the relationship between economic and career security.

5 The student will become aware of the expenses that can enter a budget.

6 The student will become aware of capital management as a system.

7 The student will understand relationships between earning, spending, and saving.

8 The student will develop knowledge of economic principles.

9 The student will recognize diversification as an investment principle.

10 The student will expand his knowledge about the relationship between economic and life-style security.

11 The student will become aware of differences in job performance as related to motivation.

Economic Awareness

Theme 19

The student will understand the relationship of his present and anticipated occupational status to economic trends found in his community, state, and nation.

1 The student will become aware of the projective nature of investments.

2 The student will develop knowledge of the relationship of economic trends in his community and state.

3 The student will become aware of fluctuating economic priorities in his local government.

Decision Making

Theme 20

The student will identify and state personal goals as part of making career decisions.

1 The student will recognize that having personal goals as a member of school groups requires making decisions.

2 The student will understand that his interests, aptitudes, skills, physical characteristics, educational achievements, adjustive behavior, needs, and relationships with other people influence his goals and career decisions.

Decision Making

Theme 21

The student will become proficient in identifying and using resource information in making career decisions.

1 The student will become aware of an array of questions related to deciding on a career choice.

2 The student will investigate in an orderly manner, answers to questions about worker functions, worker traits, work experience, and work attitudes.

Decision Making

Theme 22

The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement a course of action.

1 The student will recognize factors that increase his influence and participation in decision making.

2 The student will demonstrate increasing competency in decision-making skills by solving problems.

3 The student will recognize factors that influence the degree of responsible behavior in decision making.

4 The student will examine the role of feelings in decision making.

5 The student will understand that previous decisions will affect present and future decisions.

6 The student will understand that interests, aptitudes, skills, physical characteristics, educational achievement, adjustive behavior, needs, and relationships with other people influence decisions.

7 The student will recognize areas in which peer influence affects his decisions.

8 The student will recognize that career attributes such as requirements, conditions, rewards, and characteristics influence his decisions about careers.

Beginning Competency

Theme 23

The student will develop the skills required to identify the objectives of a task, specify resources required, outline procedures, perform operations, and evaluate the product.

1 The student will understand process skills and techniques of problem solving necessary for everyday functioning.

2 The student will understand the development of a skill from its simple to complex aspects.

3 The student will understand the need for skills and resources to accomplish tasks and recognize limiting factors.

4 The student will understand that skill assessment is a part of the planning process.

Beginning Competency

Theme 24

The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial, and industrial activities.

1 The student will understand the variety of tools, equipment, and materials needed to perform various tasks.

2 The student will understand

the need to know the various properties of tools, equipment, and materials.

3 The student will demonstrate the need for safety as related to tools, equipment, and materials.

4 The student will demonstrate the safe use of complex tools, equipment, and materials.

5 The student will identify the expertise needed to use tools, equipment, and materials.

Beginning Competency

Theme 25

The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.

1 The student will understand that different kinds of behavior contribute to successful interpersonal relations at various levels of responsibility in various environments.

Beginning Competency

Theme 26

The student will develop educational and occupational competency before moving to the next stage of preparation or entering an occupation in the career area of his choice.

1 The student will refine complex communication skills.

2 The student will refine cognitive skills associated with the scientific method.

3 The student will refine basic computational skills.

4 The student will develop skills necessary to locate and organize complex information.

5 The student will read with increased understanding a variety of publications.

Beginning Competency

Theme 27

The student will develop the skills necessary for employment in the career area of his choice.

1 The student will understand the place of interpretation in communication.

2 The student will develop additional communication skills.

3 The student will explore the various ways communication skills are used.

4 The student will develop safety consciousness in his activities.

5 The student will recognize the affect of physical skills on his future.

Employability Skills

Theme 28

The student will recognize the implications of working, with and without supervision, independently and with others.

1 The student will recognize that some tasks must be done alone and some in groups or teams.

2 The student will recognize that some situations dictate that his preferences for a particular type of task be waived.

3 The student will understand the advantages of selecting tasks for which he has a preference.

4 The student will understand that work situations may require different adjustment skills.

Employability Skills

Theme 29

The student will relate information about himself in selecting, learning, or performing duties.

1 The student will relate his qualities, aptitudes, and interests to jobs in the DOT.

2 The student will evaluate his home and school work activities.

3 The student will refine his identification of careers appropriate to his level of ability.

4 The student will select and complete a task for which he is qualified and interested.

Employability Skills

Theme 30

The student will develop the work habits and attitudes necessary to enter an occupation in the career area of his choice.

1 The student will understand and develop a task-oriented attitude.

2 The student will understand the relationship between employability and appearance.

3 The student will recognize the relationship between his attitudes and habits and his employability.

4 The student will develop attitudes and habits commensurate with employability.

Attitudes and Appreciations

Theme 31

The student will recognize the responsibilities to himself and others when accepting a task or job.

1 The student will recognize the relationships between himself and others resulting from the performance of a task.

2 The student will understand that a task well done is rewarded by self-satisfaction and recognition from others.

3 The student will recognize that others rely upon him to complete an accepted task.

Attitudes and Appreciations

Theme 32

The student will recognize individual differences and become tolerant in his interpersonal relationships.

1 The student will recognize that to be tolerant does not require that he agree with the beliefs of other people.

2 The student will recognize that there can be interpersonal relationships between persons with different skills and values.

3 The student will appreciate the rights and responsibilities of others.

Self-Awareness

Theme 1

The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals.

1 The student will use his interests to explore career information.

2 The student will use his educational abilities and achievements to hypothesize about occupations within which he might find success.

3 The student will become aware of the importance of hobbies, academic achievements, and athletic abilities in making choices about future occupations.

Self-Awareness

Theme 2

The student will learn about himself in relation to his culture through understanding and experiencing roles.

1 The student will identify roles he may assume within the next ten years.

2 The student will recognize himself as a contributing member of numerous groups.

3 The student will recognize the interlocking structure of roles in society and how this contributes to his life-style.

4 The student will recognize that role conflicts can emerge for many people in society.

Self-Awareness

Theme 3

The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.

1 The student will explore possible relationships between career and the physical attributes of an individual.

2 The student will recognize that each individual is unique.

3 The student will become aware that he changes as he develops and matures.

Self-Awareness

Theme 4

The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.

1 The student will understand that changes in him influence his environment, and that changes in environment influence him.

2 The student will recognize that other people influence his personal goals.

3 The student will become aware of skills that permit him to evaluate discrepancies between his goals and the influence of his environment.

Self-Awareness

Theme 5

The student will recognize that self-knowledge is related to a set or system of values unique to him.

1 The student will become aware of the worth of different value systems.

2 The student will recognize that each individual is unique.

3 The student will resolve problems which involve conflict of feelings.

Self-Awareness

Theme 6

The student will learn to establish, although tentative, personally relevant goals.

1 The student will become aware that when priorities and goals are planned they are more likely to be attained.

2 The student will become aware of the relationship between a model and a goal.

3 The student will understand the value of acting independently to achieve some goals.

4 The student will recognize the need to prepare short-range and long-range goals.

5 The student will recognize that his self-image will affect his goals.

Educational Awareness

Theme 7

The student will recognize that learning is a continuous process occurring in and outside of school.

1 The student will become aware that out-of-school experiences can improve his capabilities in school.

2 The student will relate learning to knowledge.

3 The student will develop knowledge of the relationship between desire to learn and learning achievement.

Educational Awareness

Theme 8

The student will recognize that educational experiences are a part of his career development.

1 The student will understand the importance of school subjects as preparation for given occupations.

2 The student will become aware of elements making up career clusters.

Educational Awareness

Theme 9

The student will recognize that different career directions require varying types of educational preparation.

1 The student will develop an understanding of the different types of educational preparation required for various careers.

2 The student will become aware that proficiency in certain subject areas is necessary to enter certain occupations.

Educational Awareness

Theme 10

The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.

1 The student will become aware of the relationship between education and career opportunities in other countries.

2 The student will understand that environmental factors may effect career goals.

Career Awareness

Theme 11

The student will understand the variety of occupations found in the world of work.

1 The student will become oriented to a variety of career groupings and explore the types of jobs found in each grouping.

2 The student will recognize the interrelatedness of jobs and how a group of jobs forms a career ladder.

Career Awareness

Theme 12

The student will understand the way in which occupations relate to needs and functions of society.

1 The student will understand the interrelationships between industries and jobs to fulfill the needs and functions of society.

2 The student will become aware of career characteristics within geographical locations and their relevance to job mobility.

3 The student will realize that many organizations exist because of community needs.

Career Awareness

Theme 13

The student will determine the worker qualifications related to performing the basic tasks of various occupations.

1 The student will understand that specific occupational requirements are related to different levels of functioning in terms of the data-people-things construct.

2 The student will understand the relationship between specific careers and the worker's general educational development in terms of reasoning, mathematics, and language.

3 The student will understand relationships between activities in and out of the school setting and success in occupational areas.

Career Awareness

Theme 14

The student will recognize that his career development includes progression through stages of educational and occupational experiences.

1 The student will recognize that career changes are possible during his life's occupational experience.

2 The student will understand the factors that influence development, termination, or changes within careers.

3 The student will recognize performance requirements of various careers.

4 The student will become aware of factors which influence a worker's career potential.

5 The student will define preparation requirements for entry into various careers.

Career Awareness

Theme 15

The student will understand the relationship between career and life-style.

1 The student will understand the implications of holding a job.

2 The student will understand the relationships of his career to individual life-styles.

3 The student will become aware of the influence of expected rewards from various careers.

4 The student will become aware that personal relationships are major factors in career experience.

Economic Awareness

Theme 16

The student will understand the relationship between personal economics, life-style, and occupational goals.

1 The student will understand life-style needs and their relationship to career rewards.

2 The student will become aware of his interest in personal economics and life-style through the occupational roles of others.

Economic Awareness

Theme 17

The student will understand the range of social and economic benefits associated with various occupations.

1 The student will consider occupational roles which are compatible with his currently expressed needs and wants.

2 The student will investigate his needs and wants as they relate to occupations.

Economic Awareness

Theme 18

The student will understand how wealth is accumulated through savings and investments and how it may influence his career and life-style.

1 The student will become aware that he will use credit.

2 The student will recognize the effects of economic planning on career achievement.

3 The student will apply simple budgeting principles.

4 The student will develop knowledge of capital management.

5 The student will develop knowledge of the relationship of life-style and economic security and relate it to his situation.

6 The student will develop knowledge of the relationship of economic security to his career planning.

7 The student will become aware of different viewpoints in investment situations.

Economic Awareness

Theme 19

The student will understand the relationship of his present and anticipated occupational status to economic trends found in his community, state, and nation.

1 The student will develop knowledge of investments as a projection of economic trends.

2 The student will become aware of economic cycles in government.

3 The student will become aware of the relationships of economic trends in his community, state, and nation.

Decision Making

Theme 20

The student will identify and state personal goals as part of making career decisions.

1 The student will recognize that having personal goals that involve self, school, occupation, leisure time, education, and organizational membership, requires making decisions.

2 The student will understand that personal characteristics influence decision making

3 The student will explore career clusters in relationship to personal goals and decision making.

Decision Making

Theme 21

The student will become proficient in identifying and using resource information in making career decisions.

1 The student will develop an awareness of the steps involved in career exploration.

2 The student will organize information so as to make some general responses to questions on career exploration.

3 The student will determine his course of study for grades eight through twelve in conformance with a career decision.

4 The student will explore jobs, increase his self-knowledge, and explore how the two are related to a career choice.

Decision Making

Theme 22

The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement a course of action.

1 The student will demonstrate skill in responsible decision-making behavior.

2 The student will recognize that all people have biases that exist in decision making.

3 The student will recognize

that previous decisions will affect present and future decisions.

4 The student will demonstrate his understanding that interests, aptitudes, skills, physical characteristics, educational achievements, adjustive behavior, needs, and relationships with other people influence decisions.

5 The student will understand that his membership in groups influences his decisions.

6 The student will understand that career attributes such as requirements, conditions, rewards, and characteristics influence his decisions about careers.

Beginning Competency

Theme 23

The student will develop the skills required to identify the objectives of a task, specify resources required, outline procedures, perform operations, and evaluate the product.

1 The student will use fundamental operations in problem solving.

2 The student will explore a variety of problem-solving situations.

3 The student will refine skills by using and experimenting with them.

4 The student will identify objectives of assigned tasks and organize sub-task sequences.

Beginning Competency

Theme 24

The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial, and industrial activities.

1 The student will use a variety of tools, equipment, and materials needed to perform various tasks.

2 The student will apply his understanding of the various properties of tools, equipment, and materials.

3 The student will refine his understanding of safety as related to tools, equipment, and materials.

4 The student will use complex tools, equipment, and materials in a safe manner.

5 The student will develop the competency or expertise needed to use tools, equipment, and materials.

Beginning Competency

Theme 25

The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.

1 The student will understand how attitude can be expressed through behavior.

2 The student will recognize the relationship between educational achievement and level of responsibility.

3 The student will recognize the relationship between educational achievement and occupational environment.

Beginning Competency

Theme 26

The student will develop educational and occupational competency before moving to the next stage of preparation or entering an occupation in the career area of his choice.

1 The student will explore a variety of communication skills.

2 The student will develop cognitive skills associated with goal selection.

3 The student will demonstrate mastery of basic computational skills.

4 The student will refine the skills necessary to locate and organize complex information.

5 The student will read with understanding complex materials.

Beginning Competency

Theme 27

The student will develop the skills necessary for employment in the career area of his choice.

1 The student will refine his communication skills.

2 The student will recognize the necessity for a variety of communication skills.

3 The student will recognize the need for communication skills in selected career areas.

4 The student will recognize the importance of safety in various career areas.

5 The student will become aware of career skills involving control of mind and body.

6 The student will develop a component of a career entry-level capability.

Employability Skills

Theme 28

The student will recognize the implications of working, with and without supervision, independently and with others.

1 The student will understand the relationships and responsibilities of directing and directed roles in work tasks.

2 The student will recognize the relatedness of his interest in work and his ability to adjust to work situations.

3 The student will understand the relationship between preferences held and responsibilities assumed.

4 The student will identify his adjustment skills and understand how they are applicable to independent and group work situations.

5 The student will differentiate among work interests and relate them to independent or group work.

Employability Skills

Theme 29

The student will relate information about himself in selecting, learning, or performing duties.

1 The student will identify his aptitudes, interests, and qualifications in response to screening devices.

2 The student will identify job openings appropriate to his level of ability.

3 The student will complete the requirements for securing a job using personal data.

Employability Skills

Theme 30

The student will develop the work habits and attitudes necessary to enter an occupation in the career area of his choice.

1 The student will complete an assigned long-range task.

2 The student will develop positive attitudes and understand their relationship to employability.

3 The student will understand the effect of appearance and behavior on the way other people relate to him.

4 The student will develop a positive attitude toward order and structure.

Attitudes and Appreciations

Theme 31

The student will recognize responsibilities to himself and others when accepting a task or job.

1 The student will become aware of relationships between himself and others resulting from the performance of a job.

2 The student will become aware that a job well done is rewarded by his own self-satisfaction as well as by recognition from others.

Attitudes and Appreciations

Theme 32

The student will recognize individual differences and become tolerant in his interpersonal relationships.

1 The student will appreciate that to be tolerant does not require that he agree with another's beliefs.

2 The student will recognize that there can be interpersonal relationships between persons with physical differences or differences of opinion.

Self-Awareness

Theme 1

The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals.

1 The student will use his interests to access and explore occupational information in the worker trait group.

2 The student will develop knowledge of the aptitudes needed for successful performance in the occupations which interest him.

3 The student will develop knowledge of the elements included in the qualifications profile for the worker trait groups which interest him.

4 The student will formulate career aspirations based upon an awareness of his changing interests, aptitudes, and achievements.

Self-Awareness

Theme 2

The student will learn about himself in relation to his culture through understanding and experiencing roles.

1 The student will experience the responsibility of school roles other than that of a student.

2 The student will use the concepts of role and role element in analyzing an occupation.

3 The student will identify the formal and informal learning experiences necessary for mastering several occupational roles.

4 The student will recognize role conflicts in his life.

5 The student will recognize that roles have status and that status is a form of social reward.

Self-Awareness

Theme 3

The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.

1 The student will explore hypothetically, the effects that career can have on health and physical fitness.

2 The student will explore factors in life which tend to make everyone similar in behavior.

3 The student will further explore his phsysiological changes, capabilities, characteristics, and limitations.

Self-Awareness

Theme 4

The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.

1 The student will use the knowledge that he is a part of his environment.

2 The student will use the knowledge that other people influence his personal goals.

3 The student will identify skills that permit him to evaluate discrepancies between his goals and the influence of his environment.

Self-Awareness

Theme 5

The student will recognize that self-knowledge is related to a set or system of values unique to him.

1 The student will recognize the worth of different value systems.

2 The student will recognize the need for a personal value system.

3 The student will depict unique characteristics of others.

4 The student will realize how emotions can have both a negative and positive effect on his ability to accomplish tasks.

Self-Awareness

Theme 6

The student will learn to establish, although tentative, personally relevant goals.

1 The student will recognize that when priorities and goals are planned, they are more likely to be attained.

2 The student will recognize the effect of a model on goals.

3 The student will use the knowledge that he can act independently to achieve some goals.

4 The student will understand the need for short-range and long-range goals.

5 The student will understand that his self-image will affect his goals.

Educational Awareness

Theme 7

The student will recognize that learning is a continuous process occurring in and outside of school.

1 The student will understand

that learning is a product of in-school and out-of-school experiences.

2 The student will understand the relationship between interest and learning.

3 The student will become aware of the difference between learning facts, learning skills, and learning habits.

Educational Awareness

Theme 8

The student will recognize that educational experiences are a part of his career development.

1 The student will understand the congruence of the student-teacher relationship to the employee-supervisor relationship.

2 The student will understand the relationship between level of education and level of employment.

Educational Awareness

Theme 9

The student will recognize that different career directions require varying types of educational preparation.

1 The student will understand that proficiency in certain subject areas is necessary to enter certain occupations.

Educational Awareness

Theme 10

The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.

1 The student will understand how science and technology create, eliminate, and effect jobs.

2 The student will understand the educational requirements needed for entry into occupations within selected career areas.

Career Awareness

Theme 11

The student will understand the variety of occupations found in the world of work.

1 The student will explore some occupations which make up the world of work.

2 The student will identify several careers and recognize the specialized jobs related to each.

3 The student will become aware

of how career patterns vary according to geographical locations.

Career Awareness

Theme 12

The student will understand the way in which occupations relate to needs and functions of society.

1 The student will become aware of careers as they relate to the needs and functions of the community.

2 The student will identify career opportunities in and out of the community.

3 The student will become aware that the time committed to community services varies widely among individuals.

Career Awareness

Theme 13

The student will determine the worker qualifications related to performing the basic tasks of various occupations.

1 The student will identify that specific occupational requirements are related to different levels of functioning in terms of data-people-things.

2 The student will identify the relationship between a worker's general educational development and success in a specific occupation.

3 The student will identify the relationship between specific career preparation and specific occupational areas.

4 The student will identify the relationship of personal interests to success in specific occupational areas.

Career Awareness

Theme 14

The student will recognize that his career development includes progression through stages of educational and occupational experiences.

1 The student will recognize career potential variables that influence job change and advancement.

2 The student will define differences in entry requirements for career fields.

Career Awareness

Theme 15

The student will understand the relationship between career and life-style.

1 The student will describe a

desirable life-style and determine its relationship to his career area preference.

2 The student will understand how differences in life-styles relate to occupations.

3 The student will become aware of the benefits, opportunities, and security offered by selected jobs within a chosen career cluster.

4 The student will recognize the interrelationship of worker to worker, occupation to occupation, and worker to occupation.

5 The student will become aware that personal relationships are major factors in career experiences.

Economic Awareness

Theme 16

The student will understand the relationship between personal economics, life-style, and occupational goals.

1 The student will become aware of economic and life-style needs and the relationship between these needs and career rewards.

Economic Awareness

Theme 17

The student will understand the range of social and economic benefits associated with various occupations.

1 The student will discover how acquisition of material wealth has both positive and negative effects.

2 The student will recognize that people-oriented and independent work are aspects of certain occupational choices and will explore his attitudes and behavior related to both.

Economic Awareness

Theme 18

The student will understand how wealth is accumulated through savings and investments and how it may influence his career and life-style.

1 The student will become aware that credit involves planning and responsibility.

2 The student will develop knowledge of budgeting principles.

3 The student will become aware that he is involved in capital management.

4 The student will develop knowledge of life-style and economic security in his own life.

5 The student will apply knowledge of economics and career security in relation to

himself.

6 The student will develop knowledge of different economic institutions.

7 The student will become aware of ways by which he can ensure career and life-style security.

Economic Awareness

Theme 19

The student will understand the relationship of his present and anticipated occupational status to economic trends found in his community, state, and nation.

1 The student will develop knowledge of the relationships of economic trends in his community, state, and nation.

2 The student will develop knowledge of the fluctuating nature of the national economy.

3 The student will become aware of economic forecasting instruments.

Decision Making

Theme 20

The student will identify and state personal goals as part of making career decisions.

1 The student will recognize that as an educational planner, having personal goals requires making decisions.

2 The student will understand that personal characteristics influence his career decisions.

3 The student will recognize that decisions are based on emotions as well as on personal characteristics and information present at the time of decision.

4 The student will make tentative choices regarding long-range career interests.

Decision Making

Theme 21

The student will become proficient in identifying and using resource information in making career decisions.

1 The student will increase occupational and self-knowledge through the use of outside resources and experiences in the community.

2 The student will use demographic data from professional and personal sources to help him decide what occupational families to study.

3 The student will gather data and describe jobs, common tasks, and attitudes of two occupational families.

4 The student will have enough background to ask appropriate questions during interviews with his counselors.

Decision Making

Theme 22

The student will understand that decision making includes responsible action in indentifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement a course of action.

1 The student will analyze his response tendency in imposed and optional decision situations.

2 The student will demonstrate increasing competence in making decisions.

3 The student will demonstrate an ability to use decision-making and problem-solving skills in gaining self-awareness and relating it to career explorations.

4 The student will demonstrate use of techniques to control bias.

5 The student will recognize that he is responsible for the outcomes of his decisions.

6 The student will apply his understanding that interests, skills, physical characteristics, educational achievement, adjustive behavior, needs, and relationships with other people influence decisions.

7 The student will recognize the relationship of his developed decision-making and problem-solving ability to his psychological well-being, self-concept, and life goals.

8 The student will summarize the factors that influence his career-related or educational choice.

9 The student will interpret how career attributes such as requirements, conditions, rewards, and characteristics influence his decisions about careers.

Beginning Competency

Theme 23

The student will develop the skills required to identify the objectives of a task, specify resources required, outline procedures, perform operations, and evaluate the product.

1 The student will identify problem-solving situations in a career area.

2 The student will demonstrate his understanding that skills must develop from the simple to the complex.

3 The student will specify resources which will be required in an assigned project and organize sub-task sequences.

4 The student will realize the need for group participation in completing certain tasks.

Beginning Competency

Theme 24

The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial, and industrial activities.

1 The student will increase his proficiency in the use of a variety of tools, equipment, and materials needed to perform various tasks.

2 The student will identify the various properties of tools, equipment, and materials.

3 The student will demonstrate the safe use of power tools and equipment as well as potentially dangerous materials.

4 The student will develop the competency or expertise needed to use power tools and equipment as well as complex materials.

Beginning Competency

Theme 25

The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.

1 The student will understand that due to the environment, it is not always appropriate to display behavior which reflects his usual attitude.

2 The student will understand that responsibility often necessitates behavior contrary to personal preference.

3 The student will recognize non-verbal communication.

4 The student will understand that relative educational level, environment, and responsibility help identify the appropriate behavior in interpersonal relationships.

Beginning Competency

Theme 26

The student will develop educational and occupational competency before moving to the next stage of preparation or entering an occupation in the career area of his choice.

1 The student will explore career-oriented communication skills.

2 The student will refine cognitive skills associated with problem solving.

3 The student will develop further computational skills.

4 The student will use the skills necessary to locate and organize complex information.

5 The student will refine his ability to read complex material.

Beginning Competency

Theme 27

The student will develop the skills necessary for employment in the career area of his choice.

1 The student will increase his proficiency in using a variety of communication skills.

2 The student will identify communication skills necessary in selected career areas.

3 The student will develop approved safety practices related to career areas.

4 The student will explore physical skills in selected career areas.

5 The student will develop an entry-level capability for a specific career area.

Employability Skills

Theme 28

The student will recognize the implications of working, with and without supervision, independently and with others.

1 The student will understand that both independent and group activities may be necessary for accomplishing tasks.

2 The student will assess the realism of his work preference.

3 The student will understand that working independently may involve varying degrees of responsibility.

Employability Skills

Theme 29

The student will relate information about himself in selecting, learning, or performing duties.

1 The student will use knowledge about his ability level to identify appropriate career opportunities.

2 The student will complete job application forms using personal interests, aptitudes, and qualifications information.

3 The student will respond to interview questions related to interests, aptitudes, and qualifications for a specific job.

Employability Skills

Theme 30

The student will develop the work habits and attitudes necessary to enter an occupation in the career area of his choice.

1 The student will work on a continuing long-range task.

2 The student will refine the writing, reading and communications skills necessary for employability.

3 The student will refine the social skills necessary for employability.

Attitudes and Appreciations

Theme 31

The student will recognize the responsibilities to himself and others when accepting a task or job.

1 The student will recognize relationships between himself and others resulting from the performance of a job.

2 The student will understand that others rely upon him to complete an accepted task.

Attitudes and Appreciations

Theme 32

The student will recognize individual differences and become tolerant in his interpersonal relationships.

1 The student will recognize the different value systems of others and their worth.

2 The student will recognize that individual differences provide opportunities for growth and self-development.

Self-Awareness

Theme 1

The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals.

1 The student will use his aptitudes as measured by the General Aptitude Test Battery to access and explore related occupational information.

2 The student will develop, in his own words, a definitive notion of his aptitudes, strengths, and weaknesses.

3 The student will use his aptitudes, strengths and weaknesses, likes and dislikes, and personal achievements to project himself into possibly satisfying occupational situations.

4 The student will use understanding about his interests, aptitudes, and achievements to develop career goals.

Self-Awareness

Theme 2

The student will learn about himself in relation to his culture through understanding and experiencing roles.

1 The student will experience an occupational role of his own.

2 The student will identify how family, school, peer group, church, community, and work experience have influenced his development.

3 The student will identify how family, school, peer group, church, community, and work experience are influencing his life-style.

4 The student will become aware that occupational roles are ranked in a status hierarchy.

Self-Awareness

Theme 3

The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.

1 The student will explore the effects that physical assets and liabilities can have on career development.

2 The student will investigate those trends toward individual action and responsibility.

3 The student will examine changes that he is undergoing as he continues to develop and mature.

Self-Awareness

Theme 4

The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.

1 The student will become aware of the relationship between personal goals and the influence of significant others upon him.

2. The student will recognize skills that permit him to evaluate discrepancies between his goals and the influence of his environment.

3 The student will be aware of those skills needed to evaluate himself in relationship to his environment.

4 The student will make statements which demonstrate an awareness of the skills needed to set obtainable goals autonomously.

Self-Awareness

Theme 5

The student will recognize that self-knowledge is related to a set or system of values unique to him.

1 The student will understand the worth of different value systems.

2 The student will identify unique characteristics of other people.

3 The student will recognize that his emotions relate to his values.

Self-Awareness

Theme 6

The student will learn to establish, although tentative, personally relevant goals.

1 The student will understand that when priorities and goals are planned they are more likely to be attained.

2 The student will recognize the difference between internalized and external goals.

3 The student will understand the need for personal goals.

4 The student will prepare both short-range and long-range goals.

5 The student will use the knowledge that his self-image will affect his goals.

Educational Awareness

Theme 7

The student will recognize that learning is a continous process occurring in and outside of school.

1 The student will differentiate between factual, skill, and behavioral learning.

2 The student will become aware that learning to learn is a skill.

3 The student will relate everyday learning to decision

making.

4 The student will identify modern sources of learning.

Educational Awareness

Theme 8

The student will recognize that his educational experiences are a part of his career development.

1 The student will illustrate how participation in school activities can relate to selected career areas.

Educational Awareness

Theme 9

The student will recognize that different career directions require varying types of educational preparation.

1 The student will understand the relationship between levels of education and levels of employment.

Educational Awareness

Theme 10

The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.

1 The student will understand the relationship between education and advancement in a career field.

2 The student will understand the need to plan an educational process to reach a selected career goal.

3 The student will accept simulated experiences as a means of learning job skills and examining a tentative job choice.

4 The student will select an appropriate high school curriculum in keeping with his tentative career goals.

Career Awareness

Theme 11

The student will understand the variety of occupations in the world of work.

1 The student will recognize various job classifications and different ways of grouping them.

2 The student will describe some specialized jobs and how geographic location, resources, and products relate.

Career Awareness

Theme 12

The student will understand the way in which occupations relate to needs and functions of society.

1 The student will develop the concept of interdependence in relation to needs and goals.

2 The student will understand career specialization as related to geographic areas and consumer demands.

3 The student will distinguish between constructive and non-constructive contributions to society.

Career Awareness

Theme 13

The student will determine the worker qualifications related to performing the basic tasks of various occupations.

1 The student will recognize the relationship between a worker's general educational development and success in specific occupations.

2 The student will recognize the relationship between specific career preparation and training, and specific occupational areas.

3 The student will recognize the relationship between personal interests and success in specific occupational areas.

4 The student will recognize the relationship between personal aptitudes and success in specific occupational areas.

Career Awareness

Theme 14

The student will recognize that his career development includes progression through stages of educational and occupational experiences.

1 The student will define the expected performance requirements of specific careers.

2 The student will analyze the entry requirements for selected career areas.

Career Awareness

Theme 15

The student will understand the relationship between career and life-style.

1 The student will correlate the monetary benefits of his chosen occupational field with his chosen life-style.

2 The student will recognize the advantages and disadvantages of the various careers explored.

3 The student will understand that personal relationships have a major influence on career experience.

4 The student will understand the term interdependence and relate this term to the world of work.

Economic Awareness

Theme 16

The student will understand the relationship between personal economics, life-style, and occupational roles.

1 The student will recognize his responsibilities and rewards in making accommodations for the future.

2 The student will understand that money earned may determine his life-style.

Economic Awareness

Theme 17

The student will understand the range of social and economic benefits associated with various occupations.

1 The student will indicate social and economic benefits associated with a career choice.

2 The student will become knowledgeable about the range of social and economic benefits available in a career of his choice.

3 The student will expand his understanding of the standard of living concept.

Economic Awareness

Theme 18

The student will understand how wealth is accumulated through savings and investments and how it may influence his career and life-style.

1 The student will understand the relationship between credit and responsibility.

2 The student will apply his knowledge of budgeting principles.

3 The student will become aware of economic macro-systems.

4 The student will understand differences in economic institutions and relate effects of these differences to his life.

5 The student will become aware of uncontrollable aspects of career and life-style security.

Economic Awareness

Theme 19

The student will understand the relationship of his present and anticipated occupational status to economic trends found in his community, state, and nation.

1 The student will recognize economic situations existing in his community, state, and nation.

2 The student will understand the fluctuating nature of the national economy.

3 The student will expand his knowledge of the tools used in economic forecasting.

Decision Making

Theme 20

The student will identify and state personal goals as part of making career decisions.

1 The student will recognize that making decisions related to personal goals is required in occupational choice.

2 The student will understand that his interests, aptitudes, skills, physical characteristics, educational achievements, adjustive behavior, needs, and relationships with other people influence his goals and career decisions.

3 The student will reexamine decisions regarding future long-range career possibilities.

Decision Making

Theme 21

The student will become proficient in identifying and using resource information in making career decisions.

1 The student will reevaluate his earlier decision about which occupational families to study.

2 The student will evaluate his occupational interests and potential in order to determine whether or not he has considered a broad enough pattern of occupational choices.

3 The student will have experiences whereby he can observe people at work.

4 The student will accumulate occupational and personal assessment data.

Decision Making

Theme 22

The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement a course of action.

1 The student will evaluate the quality of his decision making.

2 The student will apply decision-making skills to

consideration of career selections.

3 The student will determine which decisions need compromise in order to become effective.

4 The student will recognize that decisions can be tentative and reversible.

5 The student will understand that he is responsible for the outcomes of his decisions.

6 The student will continue to apply his understanding that personal interests, aptitudes, skills, physical characteristics, educational achievement, adjustive behavior, needs, and relationships with other people influence decisions.

7 The student will use skills in making decisions which involve his interests, social interactions and long-range and short-range plans.

8 The student will analyze the influence of other people on an individual's career choice and career development.

9 The student will apply career attributes such as requirements, conditions, rewards, and characteristics to his career decisions.

Beginning Competency

Theme 23

The student will develop the skills required to identify the objectives of a task, specify resources required, outline procedures, perform operations, and evaluate the product.

1 The student will gain proficiency in using fundamental operations in problem solving as they apply in selected career areas.

2 The student will explore problem-solving situations in career areas.

3 The student will understand the relationship of task sequences needed to complete assigned projects.

4 The student will identify related information common to tasks.

5 The student will identify and select the basic skills needed in the use of tools, equipment, and materials for possible career areas.

Beginning Competency

Theme 24

The student will become familiar with the use of the basic tools, equipment and materials associated with business, commercial, and industrial activities.

1 The student will identify the variety of tools, equipment, and materials needed in a particular business or industry.

2 The student will categorize the various properties of tools, equipment, and materials.

3 The student will refine his understanding of safety as related to power tools and equipment as well as potentially dangerous materials.

4 The student will increase his proficiency in the safe use of power tools and equipment as well as potentially dangerous materials.

Beginning Competency

Theme 25

The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.

1 The student will understand how the relative level of responsibility can influence his interpersonal relationships at school.

Beginning Competency

Theme 26

The student will develop educational and occupational competency before moving to the next stage of preparation or entering an occupation in the career area of his choice.

1 The student will refine career-oriented communication skills.

2 The student will recognize the relationship between school-developed and career-associated cognitive skills.

3 The student will develop increasingly complex computational skills.

4 The student will develop the skills necessary to locate and organize technical information.

5 The student will demonstrate mastery of a variety of reading skills.

Beginning Competency

Theme 27

The student will develop the skills necessary for employment in the career area of his choice.

1 The student will explore communication skills necessary in selected career areas.

2 The student will increase his proficiency in safety practices related to career areas.

3 The student will demonstrate proficiency in physical skills in his selected career area.

4 The student will identify related information common to career areas and develop entry level capability for a specific career area.

Employability Skills

Theme 28

The student will recognize the implications of working, with and without supervision, independently and with others.

1 The student will recognize the difference between entry-level jobs and jobs which have career ladders.

2 The student will understand that subject matter competency and job preference may be related.

3 The student will understand what is meant by industrial grouping and how this relates to his job preference.

4 The student will understand that future choices and work preference are not predetermined but open to change.

5 The student will understand that he will need to adjust his preferences to the requirements of his supervisor and work setting.

6 The student will differentiate between job-required temperaments and those needed for social situations.

Employability Skills

Theme 29

The student will relate information about himself in selecting, learning, or performing duties.

1 The student will use information about his interests, attitudes, and qualifications to refine his identification of potential career choices.

2 The student will prepare letters, applications, resumes, and references related to career placement.

3 The student will use standardized test results as part of the process of career consideration.

4 The student will collect and organize personal information related to his employability.

5 The student will communicate an accurate personal description in response to job screening devices.

Employability Skills

Theme 30

The student will develop the work habits and attitudes necessary to enter an occupation in the career area of his choice.

1 The student will develop attitudes consistent with task completion.

2 The student will use social and communication skills

3 The student will use social and communication skills appropriate for an employment interview.

4 The student will demonstrate communication, writing, and research skills appropriate for career placement.

Attitudes and Appreciations

Theme 31

The student will recognize the responsibilities to himself and others when accepting a task or job.

1 The student will identify relationships between himself and others resulting from the performance of a job.

2 The student will recognize that a job done well is rewarded by self-satisfaction and the recognition of others.

Attitudes and Appreciations

Theme 32

The student will recognize individual differences and become tolerant in his interpersonal relationships.

1 The student will recognize the need to appreciate the skills, abilities, rights, and responsibilities of others.

2 The student will recognize individual differences which would add to his growth and development.

3 The student will recognize the psychological variables involved in interpersonal relationships between individuals and groups.

4 The student will recognize the cultural and socio-economic aspects of individual differences.

Self-Awareness

Theme 1

The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals.

1 The student will evaluate his career goals in terms of interest, aptitudes, and achievements.

2 The student will access and explore career information from a combination of his interests and aptitudes.

3 The student will use understanding about his achievements to explore the possibilities of performing successfully in specific curriculum areas.

4 The student will plan a course of studies based upon information about his interests, aptitudes, and achievements.

Self-Awareness

Theme 2

The student will learn about himself in relation to his culture through understanding and experiencing roles.

1 The student will learn and understand an abstract definition of role.

2 The student will describe himself in terms of the various roles he plays.

3 The student will compare characteristics of each of his roles.

4 The student will use the concept of role in describing his desired life-style.

Self-Awareness

Theme 3

The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.

1 The student will evaluate the varying degrees of difficulty with which specific physical skills and liabilities can be compensated for or improved.

2 The student will determine characteristics which differentiate him from others.

3 The student will analyze the results of discussions with other people as they relate to his changing self-image and the way he is perceived by others.

Self-Awareness

Theme 4

The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.

1 The student will use those skills which permit him to evaluate discrepancies between his goals and the influence of his environment.

2 The student will recognize those skills needed to evaluate himself in relationship to his environment.

3 The student will make statements which recognize the skills needed to set obtainable goals autonomously.

Self-Awareness

Theme 5

The student will recognize that self-knowledge is related to a set or system of values unique to him.

1 The student will develop an awareness that the positive contributions of varying life-styles can help a community.

2 The student will recognize how possession of skills and abilities relate to career choices.

3 The student will understand that his emotions relate to his values.

Self-Awareness

Theme 6

The student will learn to establish, although tentative, personally relevant goals,

1 The student will recognize the ratio of his internalized goals to his external goals.

2 The student will understand that what he thinks of himself will affect his life goals.

3 The student will understand the need to evaluate how well he achieves his goals.

4 The student will understand the need to monitor systematically his progress in achieving goals.

5 The student will become aware of the value of recognizing his problems when setting goals.

Educational Awareness

Theme 7

The student will recognize that learning is a continuous process occurring in and outside of school.

1 The student will become aware that he may learn faster or slower at different times.

2 The student will develop his appreciation of learning and its relationship to living.

3 The student will understand that learning may be related to source identification.

Educational Awareness

Theme 8

The student will recognize that his educational experiences are a part of his career development.

1 The student will understand the extent in-school education has played in his occupational interests within career clusters.

2 The student will identify skills acquired in school relevant to selected occupations.

Educational Awareness

Theme 9

The student will recognize that different career directions require varying types of educational preparation.

1 The student will recognize that different types of educational preparation are necessary for various careers.

Educational Awareness

Theme 10

The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.

1 The student will become aware of a relationship between in-school and on-the-job education.

2 The student will become aware of the changing nature of the world of work and its effects upon the individual.

Career Awareness

Theme 11

The student will understand the variety of occupations found in the world of work.

1 The student will explore occupations within and related to the fields he is considering.

2 The student will know of the existence, importance, and implications of career specialization.

Career Awareness

Theme 12

The student will understand the way in which occupations relate to needs and functions of society.

1 The student will relate his career choice to the needs of the community and the interrelatedness of his occupation.

2 The student will become familiar with job opportunities as related to social and economic trends in his geographic area.

3 The student should become aware of the personal benefits institutions and organizations offer the adolescent.

Career Awareness

Theme 13

The student will determine the worker qualifications related to performing the basic tasks of various occupations.

1 The student will understand the training and methods of entry related to specific occupational areas.

2 The student will understand that personal traits are related to success in specific occupational areas.

3 The student will understand that personal aptitudes are related to success in specific occupational areas.

4 The student will understand that personal temperament relates to success in specific occupational areas.

Career Awareness

Theme 14

The student will recognize that his career development includes progression through stages of educational and occupational experiences.

1 The student will recognize factors that influence horizontal and vertical mobility for the worker in an occupation.

2 The student will recognize line and staff functions in the organization and operation of an occupation.

Career Awareness

Theme 15

The student will understand the relationship between career and life-style.

1 The student will become aware of life-style and cultural-value conflicts within a group of related occupations.

2 The student will understand that rewards, in many forms, will vary with the requirements and responsibilities of the job.

3 The student will demonstrate

the term interdependence and relate this term to the world of work.

4 The student will recognize job opportunities as related to social and economic trends in his geographic area.

Economic Awareness

Theme 16

The student will understand the relationship between personal economics, life-style, and occupational roles.

1 The student will understand his responsibility and rewards in making accommodations for the future.

2 The student will identify an occupational area which he considers appropriate to his life-style.

3 The student will become aware of the costs involved in terms of time, education, and training when selecting a career.

4 The student will become aware of the need for retraining as related to employment potential.

Economic Awareness

Theme 17

The student will understand the range of social and economic benefits associated with various occupations.

1 The student will understand factors which influence him to need or want certain social and economic rewards.

2 The student will be familiar with social and economic factors which affect his standard of living.

Economic Awareness

Theme 18

The student will understand how wealth is accumulated through savings and investments and how it may influence his career and life-style.

1 The student will develop knowledge of economic macro-systems.

2 The student will develop knowledge of investment institutions and their relationships to economic environments.

3 The student will develop knowledge of the effect of economic security on his chosen career.

4 The student will become aware of the effect that economic security may have on life- style planning.

Economic Awareness

Theme 19

The student will understand the relationship of his present and anticipated occupational status to economic trends found in his community, state, and nation.

1 The student will become aware of the political nature of a fluctuating economy.

2 The student will become aware of principles used in predicting economic trends in his community, state, and nation.

3 The student will become aware of the agencies that produce predictive tools.

Decision Making

Theme 20

The student will identify and state personal goals as part of making career decisions.

1 The student will recognize that having personal goals requires making decisions.

2 The student will make a tentative plan for developing his long-range career possibilities and what is required to achieve them.

Decision Making

Theme 21

The student will become proficient in identifying and using resource information in making career decisions.

1 The student will understand how school and work experiences meet the needs of occupational preparation.

2 The student will reevaluate his interests, attitudes, and aptitudes to obtain increased understanding of which occupational family he should choose.

3 The student will decide the kind of work experiences and observations that will meet his needs.

Decision Making

Theme 22

The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement a course of action.

1 The student will apply decision-making skills to consideration of career choice.

2 The student will understand that the decision-making process is flexible and that decisions

may need to be changed.

3 The student will understand that previous decisions will affect present and future career decisions.

4 The student will demonstrate skill in using decision-making and problem-solving skills in gaining self-awareness and relating it to career preparation.

5 The student will consider forces which might influence his decisions.

6 The student will analyze how career attributes such as requirements, conditions, rewards, and characteristics influence decisions about careers.

Beginning Competency

Theme 23

The student will develop the skills required to identify the objectives of a task, specify resources required, outline procedures, perform operations, and evaluate the product.

1 The student will apply problem-solving skills to a particular career area.

2 The student will develop observation skills used to collect data needed to solve problems.

3 The student will understand the relationships of tools and equipment to specific tasks.

4 The student will plan and execute assigned projects relating to career selection.

5 The student will apply appropriate skills acquired to accomplish a task.

Beginning Competency

Theme 24

The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial, and industrial activities.

1 The student will identify the uses of the variety of tools, equipment, and materials needed in a business or industry.

2 The student will demonstrate proficiency in the care and maintenance of various tools, equipment, and materials.

3 The student will become aware of the need to understand safety as related to business and industry.

4 The student will demonstrate safety practices appropriate to business and industry.

5 The student will identify the competency or expertise needed to use tools, equipment, and materials in business and industry.

Beginning Competency

Theme 25

The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.

1 The student will understand how relative levels of responsibility can influence extra-curricular and social relationships.

Beginning Competency

Theme 26

The student will develop educational and occupational competency before moving on to the next stage of preparation or entering an occupation in the career area of his choice.

1 The student will demonstrate entry-level proficiency in communication skills associated with a particular career cluster.

2 The student will understand the relationship between school-developed and career-associated cognitive skills.

3 The student will develop complex computational skills.

4 The student will demonstrate the ability to read career-associated technical material.

5 The student will relate skills learned in school to a chosen career.

Beginning Competency

Theme 27

The student will develop the skills necessary for employment in the career of his choice.

1 The student will demonstrate proficiency in communication skills needed in his selected career area.

2 The student will refine related knowledge and entry-level capabilities for a tentative career area choice.

Employability Skills

Theme 28

The student will recognize the implications of working, with and without supervision, independently and with others.

1 The student will recognize that some tasks require much responsibility due to safety and cost factors.

2 The student will identify the requirements of supervision.

Employability Skills

Theme 29

The student will relate information about himself in selecting, learning, or performing duties.

1 The student will communicate an accurate personal description during an interview.

2 The student will identify several potential careers which he is capable of pursuing.

Employability Skills

Theme 30

The student will develop work habits and attitudes necessary to enter an occupation in the career area of his choice.

1 The student will complete a simulated or real job-seeking task.

2 The student will demonstrate the appropriate communication and research skills for career placement.

3 The student will use social and communication skills appropriate for employment interviews.

Attitudes and Appreciations

Theme 31

The student will recognize the responsibilities to himself and others when accepting a task or job.

1 The student will understand the need for beneficial relationships between himself and others resulting from the performance of a job.

2 The student will recognize that others rely upon him to complete an accepted job.

Attitudes and Appreciations

Theme 32

The student will recognize individual differences and become tolerant in his interpersonal relationships.

1 The student will recognize that individual differences are often the basis for interpersonal relationships.

2 The student will recognize the psychological variables involved in interpersonal relationships between individuals.

3 The student will recognize the cultural and socio-economic aspects of individual differences.

4 The student will recognize that differences are not necessarily negative.

5 The student will recognize the value of individual differences in bringing progress to social, economic, and technological areas.

Self-Awareness

Theme 1

The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals.

1 The student will analyze his educational performance and career preparation programs in order to develop a deeper awareness of his interests, aptitudes, and achievements.

2 The student will reevaluate his present interests and achievements as they emerge from his educational experiences.

3 The student will reevaluate his career goals according to his emerging interests, aptitudes, and achievements.

4 The student will make post high school plans based upon new information about his interests, aptitudes, and achievements.

Self-Awareness

Theme 2

The student will learn about himself in relation to his culture through understanding and experiencing roles.

1 The student will recognize that a description of himself in terms of roles is an oversimplification.

2 The student will describe society as a complex of roles each of which has a status and linkage to other roles.

3 The student will recognize that an effort to integrate the various roles he chooses to fill around his value system can help reduce his role conflicts.

4 The student will identify career ladders in terms of a succession of related roles.

Self-Awareness

Theme 3

The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.

1 The student will adapt knowledge of his physical strengths and weaknesses in changing career environments.

2 The student will investigate information and events which have had significance for him.

3 The student will recognize and react to an evolving awareness of himself.

Self-Awareness

Theme 4

The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.

1 The student will understand the skills needed to evaluate himself in relationship to his environment.

2 The student will make statements which show understanding of the skills needed to set obtainable goals autonomously.

Self-Awareness

Theme 5

The student will recognize that self-knowledge is related to a set or system of values unique to him.

1 The student will recognize and analyze the influence of socio-economic and ethnic factors on his development.

2 The student will recognize the necessity of questioning values.

3 The student will recognize that he possesses a unique combination of interests and abilities.

4 The student will recognize that the ability to cope with stress is critical to emotional stability.

Self-Awareness

Theme 6

The student will learn to establish, although tentative, personally relevant goals.

1 The student will recognize his preference for either internalized or external goals.

2 The student will recognize that what he thinks of himself will affect the manner in which he deals with others.

3 The student will recognize the need to evaluate how well he achieves goals.

4 The student will recognize the need to monitor systematically his progress in achieving goals.

5 The student will become aware of the value of recognizing personal needs when setting goals.

Educational Awareness

Theme 7

The student will recognize that learning is a continuous process occurring in and outside of school.

1 The student will develop knowledge about the nature of learning.

2 The student will understand that learning is also a

life-time activity.

3 The student will develop knowledge about methods of learning.

Educational Awareness

Theme 8

The student will recognize that educational experiences are a part of his career development.

1 The student will understand the in-school educational steps necessary to qualify for selected occupations.

2 The student will identify how selected school classes relate to participation in his community.

Educational Awareness

Theme 9

The student will recognize that different career directions require varying types of educational preparation.

1 The student will understand the different types of educational preparation that are necessary for various careers.

Educational Awareness

Theme 10

The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.

1 The student will recognize a relationship between in-school and on-the-job education.

2 The student will evaluate his progress toward tentative career goals and assess their suitability.

3 The student will assess his plan of course selection for the remainder of his school years.

Career Awareness

Theme 11

The student will understand the variety of occupations found in the world of work.

1 The student will know the detailed characteristics of his chosen fields.

Career Awareness

Theme 12

The student will understand the way in which occupations relate to needs and functions of society.

1 The student will become aware of the roles to which his career choices apply in the community.

2 The student will understand job opportunities in relation to social and economic trends in their geographic locations.

3 The student will recognize that service organizations have different goals and objectives and that some are profit oriented.

Career Awareness

Theme 13

The student will determine the worker qualifications related to performing the basic tasks of various occupations.

1 The student will identify the training and methods of entry related to specific occupational areas.

2 The student will identify the worker traits related to successful performance in specific occupational areas.

Career Awareness

Theme 14

The student will recognize that his career development includes progression through stages of educational and occupational experiences.

1 The student will define and evaluate responsibilities in various occupations.

2 The student will apply the operation of line and staff functions to vertical and horizontal mobility in various career areas.

Career Awareness

Theme 15

The student will understand the relationship between career and life-style.

1 The student will understand that proper career selection is vital to his health, happiness, and general well-being.

2 The student will understand the advantages and disadvantages inherent in various careers.

3 The student will become aware of the relationships of careers within a given cluster.

4 The student will understand job opportunities in his geographic area in relation to economic trends and his life-style.

5 The student will recognize that mobile careers can cause changes in an individual's life-style.

Economic Awareness

Theme 16

The student will understand the relationship between personal economics, life-style, and occupational roles.

1 The student will become aware that individual value systems determine individual needs and relate to a desired standard of living.

2 The student will recognize the need for retraining as related to employment potential.

Economic Awareness

Theme 17

The student will understand the range of social and economic benefits associated with various occupations.

1 The student will understand how social and economic needs relate to career choice.

2 The student will demonstrate a positive attitude toward a particular standard of living.

Economic Awareness

Theme 18

The student will understand how wealth is accumulated through savings and investments and how it may influence his career and life-style.

1 The student will understand the relationship among economic macro-systems.

2 The student will develop understanding of investment institutions.

3 The student will understand the effect of economic security on his chosen career.

4 The student will understand the effect of economic security on his life-style.

5 The student will relate economic principles to his present situation.

6 The student will develop knowledge of the relationship of economic security and career change.

7 The student will develop understanding of the relationship of economic security and life-style change.

Economic Awareness

Theme 19

The student will understand the relationship of his present and anticipated occupational status to economic trends found in his community, state, and nation.

1 The student will develop knowledge of the political reasons for a fluctuating

economy.

2 The student will develop knowledge of principles used for predicting economic trends in his community, state, and nation.

3 The student will expand his knowledge of economic predictive tools and agencies.

Decision Making

Theme 20

The student will identify and state personal goals as part of making career decisions.

1 The student will explore his career goals and the subsequent decisions that are required by such goals.

2 The student will make tentative decisions regarding long-range career possibilities.

Decision Making

Theme 21

The student will become proficient in identifying and using resource information in making career decisions.

1 The student will continue to acquire information in the continuing evaluation and development of his educational plan.

2 The student will use newly acquired information in assessing his progress toward his career goal.

3 The student will learn about additional sources of occupational information.

4 The student will use information in making decisions about a career choice.

Decision Making

Theme 22

The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement a course of action.

1 The student will apply decision-making skills to consideration of a career choice.

2 The student will understand that a given set of facts can support different decisions.

3 The student will understand that compromise of personal decisions is sometimes necessary.

4 The student will understand that the consequences of a decision can affect his life patterns.

5 The student will demonstrate skill in using decision-making

and problem-solving skills in gaining awareness and relating it to career preparation.

6 The student will analyze the relationship of personal goals and values to his career cluster selection.

7 The student will evaluate how career attributes such as requirements, conditions, rewards, and characteristics influence decisions about careers.

Beginning Competency

Theme 23

The student will develop the skills required to identify the objectives of a task, specify resources required, outline procedures, perform operations, and evaluate the product.

1 The student will apply problem-solving skills to the career area of his choice.

2 The student will develop new skills in sequence from the simple to complex.

3 The student will demonstrate the ability to select tools, materials, and proper group size for use within a career area.

4 The student will plan and execute a project and observe that evaluation and replanning are necessary during execution.

Beginning Competency

Theme 24

The student will become familiar with the use of the basic tools, equipment, and materials associated with business, commercial, and industrial activities.

1 The student will be able to select the appropriate tools, equipment, and materials needed to perform various tasks in a particular career area.

2 The student will identify procedures for maintaining the various tools, equipment, and materials associated with a career area.

3 The student will understand safety as related to his particular career choice.

4 The student will demonstrate safety practices appropriate to his career choice.

5 The student will demonstrate competency or expertise needed to select tools, equipment, and materials in business and industry.

Beginning Competency

Theme 25

The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.

1 The student will understand that relative levels of responsibility can influence interpersonal relationships on the job.

Beginning Competency

Theme 26

The student will develop the educational and occupational competency before moving to the next stage of preparation or entering an occupation in the career area of his choice.

1 The student will refine complex communication skills associated with a particular career cluster.

2 The student will use cognitive skills associated with a particular career cluster.

3 The student will refine complex computational skills.

4 The student will refine the ability to read career-associated technical material.

5 The student will develop academic skills directly applicable to the job.

Beginning Competency

Theme 27

The student will develop the skills necessary for employment in the career area of his choice.

1 The student will increase his proficiency in the communication skills needed for his selected career area.

2 The student will demonstrate increased knowledge of his selected career and the necessary entry-level skills for it.

Employability Skills

Theme 28

The student will recognize the implications of working, with and without supervision, independently and with others.

1 The student will understand the advantages and responsibilities of his career choices.

2 The student will know what adjustment skills are necessary for the work setting of his career choices.

3 The student will examine work-oriented and play-oriented tasks and understand similarities.

Employability Skills

Theme 29

The student will relate information about himself in selecting, learning, or performing duties.

1 The student will identify careers for which he has skills and personal traits.

2 The student will successfully complete job application procedures.

3 The student will communicate accurate and sufficient personal data when writing a resume.

4 The student will identify a potential career which he is capable of pursuing.

5 The student will evaluate his chances of success in a chosen career.

6 The student will refine his communication skills related to interviews.

7 The student will prepare personal data in a form adaptable to numerous situations.

Employability Skills

Theme 30

The student will develop the work habits and attitudes necessary to enter an occupation in the career area of his choice.

1 The student will complete an assigned task related to employability.

2 The student will become aware of how to deal with insecurity when on a new job.

3 The student will become aware of how to handle an employment rejection.

4 The student will communicate effectively with others regarding employment.

Attitudes and Appreciations

Theme 31

The student will recognize the responsibilities to himself and others when accepting a task or job.

1 The student will discuss the need for beneficial relationships between himself and others resulting from the performance of a job.

2 The student will understand that a job done well is rewarded by self-satisfaction and the recognition of others.

Attitudes and Appreciations

Theme 32

The student will recognize individual differences and become tolerant in his interpersonal relationships.

1 The student will show acceptance of individual

differences by defending the right of others to hold attitudes and values different from his own.

2 The student will understand the psychological variables involved in interpersonal relationships between individuals.

Self-Awareness

Theme 1

The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals.

1 The student will evaluate the successes and failures in his educational program and develop an understanding of occupations in which he might be successful.

2 The student will use his emerging interests, aptitudes, and achievements in educational and career programs in making career choices.

Self-Awareness

Theme 2

The student will learn about himself in relation to his culture through understanding and experiencing roles.

1 The student will use the concept of role to analyze both himself and the structure of society.

Self-Awareness

Theme 3

The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.

1 The student will capitalize on his physical strengths and compensate for his physical weaknesses while developing post-secondary career plans.

2 The student will accept himself as a unique person.

3 The student will understand that he is a growing and continually developing person.

Self-Awareness

Theme 4

The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.

1 The student will use those skills needed to evaluate himself in relationship to his environment.

2 The student will make statements about himself which demonstrate self-awareness and set obtainable goals autonomously.

Self-Awareness

Theme 5

The student will recognize that self-knowledge is related to a set or system of values unique to him.

1 The student will recognize that his values are characteristic of his culture.

2 The student will identify career choices in society in relation to his unique abilities and interests.

3 The student will understand the importance of reacting rationally rather than emotionally to a problem.

Self-Awareness

Theme 6

The student will learn to establish, although tentative, personally relevant goals.

1 The student will realize that what he believes influences what he becomes.

2 The student will use the knowledge that what he thinks of himself will affect his life goals.

3 The student will evaluate how well he achieves his goals.

4 The student will systematically monitor his progress in achieving goals.

5 The student will become aware of the value of recognizing his strengths when setting goals.

Educational Awareness

Theme 7

The student will recognize that learning is a continuous process occurring both in and outside of school.

1 The student will understand how and why he learns.

2 The student will become aware that continual learning is a part of life and career adjustment.

3 The student will understand that what he will learn and how he can learn it is up to him.

Educational Awareness

Theme 8

The student will recognize that educational experiences are a part of his total career development.

1 The student will understand how school classes and activities will relate to his use of time throughout life.

2 The student will understand relationships between educational experiences and career preparation.

Educational Awareness

Theme 9

The student will recognize that different career directions require varying types of educational preparation.

1 The student will plan the post-secondary educational experiences that will be required for the career of his choice.

Educational Awareness

Theme 10

The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.

1 The student will understand the relationship between in-school and on-the-job education.

2 The student will analyze his educational experiences in reference to career goals.

Career Awareness

Theme 11

The student will understand the variety of occupations found in the world of work.

1 The student will know the steps necessary immediately following high school to gain entry into his chosen career.

Career Awareness

Theme 12

The student will understand the way in which occupations relate to needs and functions of society.

1 The student will anticipate new career opportunities by predicting trends in advanced knowledge and technology.

2 The student will evaluate employment opportunities in his career area based on local, regional, and national trends.

3 The student will expand his social involvement through community agencies.

Career Awareness

Theme 13

The student will determine the worker qualifications related to performing the basic tasks of various occupations.

1 The student will identify the training and method of entry related to specific occupational areas.

2 The student will identify the

worker traits related to successful performance in specific occupational areas.

Career Awareness

Theme 14

The student will recognize that his career development includes progression through stages of educational and occupational experiences.

1 The student will define and evaluate expected responsibilities in a specific occupation in which he has experience.

2 The student will understand how factors may influence his vertical and horizontal mobility in a selected career.

3 The student will apply line and staff functions and responsibilities to a specific career.

Career Awareness

Theme 15

The student will understand the relationship between career and life-style.

1 The student will become aware of any life-style conflicts with his chosen career.

2 The student will examine the influence of expected rewards from selected careers.

3 The student will become aware of the personal relationships of careers between career clusters.

4 The student will evaluate local and national job opportunities in his chosen career area.

Economic Awareness

Theme 16

The student will understand the relationship between personal economics, life-style, and occupational roles.

1 The student will become aware of economic and life-style needs and their relationship to occupational roles.

2 The student will understand the need for retraining as related to employment potential.

Economic Awareness

Theme 17

The student will understand the range of social and economic benefits associated with various occupations.

1 The student will understand the range of social and economic benefits associated with his chosen career.

2 The student will understand that society benefits from the improvement in living standards for low socio-economic groups.

Economic Awareness

Theme 18

The student will understand how wealth is accumulated through savings and investments and how it may influence his career and life-style.

1 The student will apply knowledge of economic macro-systems.

2 The student will apply knowledge of investment institutions.

3 The student will apply knowledge of economic micro-systems to his future.

4 The student will understand the relationship of economic security and career change.

5 The student will coordinate his life-style desires and career choice.

Economic Awareness

Theme 19

The student will understand the relationship of his present and anticipated occupational status to economic trends found in his community, state, and nation.

1 The student will develop knowledge of the role he can play in regulating governmental effects on the economy.

2 The student will apply economic principles in predicting his career future in terms of community, state, and national employment opportunities.

3 The student will identify the predictive tools and agencies he might use in the future.

Decision Making

Theme 20

The student will identify and state personal goals as part of making career decisions.

1 The student will successfully make decisions relating to personal goals.

2 The student will make tentative decisions relating to long-range career possibilities.

Decision Making

Theme 21

The student will become proficient in identifying and using resource information in making career decisions.

1 The student will refine the ability to identify and gather information needed to make decisions about career choice.

2 The student will continue to use information in making decisions about a career choice.

3 The student will register with a placement center.

4 The student will experience simulated job interviews, in-basket activities, and forced decision making.

5 The student will reconsider goals, formulate new plans, and resolve the differences between the new and old goals and plans.

6 The student will understand how to solve problems in various occupational families.

Decision Making

Theme 22

The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement a course of action.

1 The student will understand the increasing need for flexibility and complexity in his decision-making processes.

2 The student will understand the need for continual evaluation and possible revision of decisions.

3 The student will analyze the factors involved in his career choice.

4 The student will understand the relativity of importance among influences on decisions.

5 The student will project immediate, intermediate, and long-term effects of decisions on himself, family, and society.

6 The student will analyze the influence of goals and values in the decision-making process used to confirm his career choice.

Beginning Competency

Theme 23

The student will develop the skills required to identify the objectives of a task, specify resources required, outline procedures, perform operations, and evaluate the product.

1 The student will apply job entry-level, problem-solving skills.

2 The student will synthesize simple skills in order to develop new, complex skills.

3 The student will understand long-range planning and planning constraints.

4 The student will understand how evaluation and replanning are necessary during project execution in order to improve

the product.

5 The student will plan and execute an original project.

Beginning Competency

Theme 24

The student will become familiar with the use of the basic tools, equipment, and materials associated with business, commercial, and industrial activities.

1 The student will use appropriate tools, equipment, and materials needed to complete a task associated with his chosen career.

2 The student will demonstrate proficiency in the care and maintenance of various tools, equipment, and materials at the job entry level.

3 The student will evaluate current safety practices in business and industry.

4 The student will demonstrate proficiency in safety practices at the job entry level.

5 The student will demonstrate entry-level competency in the use of tools, equipment, and materials associated with his chosen career.

Beginning Competency

Theme 25

The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.

1 The student will understand how relative levels of responsibility may influence interpersonal relations during on-the-job training experience.

2 The student will demonstrate those interpersonal relations skills likely to be expected of him while looking for a job.

3 The student will understand that success in interpersonal relations may be influenced by another's perception of authority related to seniority.

Beginning Competency

Theme 26

The student will develop the educational and occupational competency before moving to the next stage of preparation or entering an occupation in the career area of his choice.

1 The student will use complex communication skills associated with a particular career cluster.

2 The student will use and refine cognitive skills

associated with a particular career cluster.

3 The student will demonstrate mastery of complex computational skills.

4 The student will use the ability to read technical material associated with his career choice.

5 The student will refine academic skills directly applicable to an occupation of his choice.

Beginning Competency

Theme 27

The student will develop the skills necessary for employment in the career of his choice.

1 The student will use his proficiency in communication skills in simulated career situations.

2 The student will demonstrate knowledge of safety rules in the career of his choice.

3 The student will align his entry-level skills with his career desires.

Employability Skills

Theme 28

The student will recognize the implications of working, with and without supervision, independently and with others.

1 The student will identify and plan for a minimum of three career placement alternatives.

2 The student will identify his avocational pursuits and their implications for career placement.

Employability Skills

Theme 29

The student will relate information about himself in selecting, learning, or performing duties.

1 The student will select several job openings for which he is qualified.

2 The student will present an accurate description of education, training, experience, and related personal data to potential employers through a variety of delivery systems such as interviews, tests, and application forms.

3 The student will select a career which he is capable of pursuing, basing the decision on knowledge about himself and the selected career.

Employability Skills

Theme 30

The student will develop the work habits and attitudes necessary to enter an occupation in the career area of his choice.

1 The student will communicate effectively with other people.

2 The student will meet the requirements necessary for job entry.

Attitudes and Appreciations

Theme 31

The student will recognize the responsibilities to himself and others when accepting a task or job.

1 The student will demonstrate beneficial relationships between himself and others resulting from the performance of a job.

2 The student will appreciate that a job done well is rewarded by self-satisfaction and the recognition of others.

3 The student will understand that others rely upon him to complete an accepted job.

Attitudes and Appreciations

Theme 32

The student will recognize individual differences and become tolerant in his interpersonal relationships.

1 The student will appreciate the different ideas and values of others without having to adopt them.

2 The student will recognize that the different skills and behaviors of others contribute to the enrichment of his environment.

3 The student will demonstrate the value of individual differences in bringing about progress in social, economic, and technological areas.

APPENDICES

APPENDIX A

PERSONS PARTICIPATING IN THE DEVELOPMENT OF THE MATRIX OF ELEMENTS AND GOALS OF CAREER EDUCATION

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APPENDIX B

GLOSSARY

Element - The concept of Career Education is divided into eight essential components called Career Elements. They represent areas of educational development, starting at the awareness level, that can, in terms of career, be specified in educational goals and cognitive, affective and psychomotor behavioral objectives.

Theme - This describes the relatedness of specific goal statements over the entire span or portions of elementary-secondary school programs. Several themes may be associated with each Career Element. They serve to specify the breadth and scope of content related to the Career Element.

Goal Statement - This is a general statement of what is intended. It is more specific than an element or theme and indicates the level of achievement expected for a specific grade. The goal statement is more general than a performance objective.

Performance Objective - A performance objective clearly indicates what the student who has achieved the objective will be able to do. In addition, the performance objective specifies in measurable terms the conditions under which the student is expected to perform and the extent or degree of excellence associated with mastery or achievement. Performance objectives were originally part of the Matrix, but they are now placed in the curriculum units.

Career Awareness - A term used to describe one of the three stages of development for a student in the process of career education. It is also used as one of the elements of the Matrix.

APPENDIX C

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APPENDIX D

MATRIX THEMES

SELF-AWARENESS

1. The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals.

2. The student will learn about himself in relation to his culture through understanding and experiencing roles.

3. The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.

4. The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.

5. The student will recognize that self-knowledge is related to a set or system of values unique to him.

6. The student will learn to establish, although tentative, personally relevant goals.

EDUCATIONAL AWARENESS

7. The student will recognize that learning is a continuous process occurring in and outside of school.

8. The student will recognize that educational experiences are a part of his career development.

9. The student will recognize that different career directions require varying types of educational preparation.

10. The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.

CAREER AWARENESS

11. The student will understand the variety of occupations found in the world of work.

12. The student will understand the way in which occupations relate to needs and functions of society.

13. The student will determine the worker qualifications related to performing the basic tasks of various occupations.

14. The student will recognize that his career includes progression through developmental stages of educational and occupational experiences.

15. The student will understand the relationship between career and life-style.

ECONOMIC AWARENESS

16. The student will understand the relationship between personal economics, life-style, and occupational roles.

17. The student will understand the range of social and economic benefits associated with various occupations.

18. The student will understand how wealth is accumulated through savings and investments and how it may influence his career and life-style.

19. The student will understand the relationship of his present and anticipated occupational status to economic trends found in his community, state, and nation.

DECISION MAKING

20. The student will identify and state personal goals as part of making career decisions.

21. The student will become proficient in identifying, and using resource information in making career decisions.

22. The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement the course of action.

BEGINNING COMPETENCY

23. The student will develop the skills required to identify the objectives of a task, specify resources required, outline procedures, perform operations, and evaluate the product.

24. The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial, and industrial activities.

25. The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.

26. The student will develop educational and occupational competency before moving to the next stage of preparation or entering an occupation in the career area of his choice.

27. The student will develop the skills necessary for employment in the career of his choice.

EMPLOYABILITY SKILLS

28. The student will recognize the implications of working, with and without supervision, independently and with others.

29. The student will relate information about himself in selecting, learning, or performing duties.

30. The student will develop the work habits and attitudes necessary to enter an occupation in the career area of his choice.

ATTITUDES AND APPRECIATIONS

31. The student will recognize the responsibilities to himself and others when accepting a task or job.

32. The student will recognize individual differences and become tolerant in his interpersonal relationships.

APPENDIX E

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A Review of the Developmental Program Goals for the Comprehensive Career Education Model

INSTITUTE FOR EDUCATIONAL DEVELOPMENT

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A Report on Two Conferences

CONFERENCE 1

Nine Scholars Assess the Quality of the Developmental Program Goals as an Intellectual Product

Airlie House, Virginia
March 13-14, 1973

CONFERENCE 2

Six User Groups Assess the Acceptability and Usefulness of the Developmental Program Goals

Chicago, Illinois
June 7-8, 1973

to
the National Institute of Education

by
Institute for Educational Development
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PREFACE

Four major "model" programs in career education are currently being funded by the newly-created National Institute of Education (NIE), after having been transferred to it from the U. S. Office of Education in 1972. The four models are called the school-based, employer-based, home-based, and rural residential models.

The "school-based" program began as the Comprehensive Career Education Model (CCEM), also referred to as Model I. CCEM is currently being developed by the Center for Vocational and Technical Education (CVTE) at the Ohio State University in cooperation with six local education agencies (LEAs): Atlanta, Georgia; Hackensack, New Jersey; Jefferson County, Colorado; Los Angeles, California; Mesa, Arizona; and Pontiac, Michigan.

Goals of the Comprehensive Career Education Model

The CCEM approach is a systematic design for a new educational program to insure that upon leaving school, students will be prepared for continuing education and/or for immediate employment. The program is designed for students in grades K-12.

The first product to be created for the CCEM program was a set of over one thousand goals, published by CVTE in August, 1972 as Developmental Program Goals for the Comprehensive Career Education Model, Preliminary Edition. The goals contained in this document were developed in the fall of 1971 by CVTE with the help of the LEAs. They constitute one definition of career education in terms of pupil learning. The goals are progressively sequenced starting with career awareness in the elementary grades and moving through career exploration in the junior high grades to career preparation in the senior high grades.

Use of Goals Within CCEM Program. The goals have been used since the fall of 1971 as the intellectual framework for the entire program and have been put to many uses. Specifically, they have been used to help identify pre-existing curriculum materials that schools could use to accomplish the goals, to classify those pre-existing materials to determine what additional materials need to be developed for a complete curriculum based on the goals, and to guide the creation of a number of products, including the refinement/revision/development of approximately 150 curriculum units averaging twenty hours of classroom instruction each.

The goals were also used by the Institute for Educational Development acting as external program evaluator to assess the first 45 of the 150 curriculum units through field trials during 1972-73.

Outside Interest in the CCEM Goals. The creation and publication of the Developmental Program Goals has aroused considerable national interest outside the program itself. A number of state education departments, local school districts, career education projects and others interested in career education have expressed a desire to use the CCEM goals to help establish goals for their own programs, to select instructional materials, to develop new instructional materials, or for other purposes.

Reviewing the CCEM Developmental Program Goals

When the goals were originally developed by CVTE and the LEAs in the fall of 1971, the program was being supported by the U.S. Office of Education. When the project was transferred from the Office of Education to the National Institute of Education (NIE) in 1972, the goals were already in active use within the CCEM program and had already aroused widespread outside interest. Given the central position of the goals as the intellectual framework for CCEM and the influence they were exercising over the creation of CCEM products such as the approximately 150 curriculum units mentioned above, and given the degree of outside interest in the goals inasmuch as they constituted the most elaborate currently-available definition of career education in terms of pupil learning, NIE found itself faced with a situation requiring important decisions. How should the Developmental Program Goals be used? Should they continue to serve as the intellectual framework for CCEM? Should NIE extend the Office of Education's decision to fund the creation of curriculum units based on the goals? Should the goals be generally circulated to outsiders interested in career education? Should the goals be significantly modified before further use inside the project and before circulation outside the project?

Faced with these decisions, NIE asked IED as external evaluator to conduct an independent appraisal from several different vantage points. The appraisal was to accomplish three objectives:

1) To advise NIE as to whether it should authorize continued use of the goals in their current form within the CCEM program, whether it should circulate the goals to persons outside the program for their own use, and whether it should commission modifications and/or the creation of alternatives to the CCEM goals.

2) To supply information to CVTE and the LEAs, both of whom are the chief users of the goals at the present time, as to how the goals might be used and/or modified.

3) To supply outside users of the goals with advice as to whether and how they might be used.

SPONSORING ORGANIZATIONS

The organizations and agencies involved in producing CCEM Developmental Program Goals and/or this report about them are as follows:

1. National Institute of Education. NIE is the research and development agency of the U. S. Department of Health, Education, and Welfare for the field of education. Created by Congressional enactment in 1972, NIE is intended to become for education what the National Institute of Health has become for the medical sciences. The Career Education Task Force, which is responsible for the four major model programs in career education including CCEM (Model I), is primarily interested in the creation of research-based, validated findings, procedures, and materials for the conduct of career education.

2. The Center for Vocational and Technical Education. CVTE is one of a number of university-based research and development centers established by the U. S. Office of Education in the 1960's. It is one of two such centers concentrating its efforts in career education. Currently, CVTE draws its primary financial support from the National Institute of Education, both for its basic, ongoing programs of research and development and for such large-scale special projects as CCEM.

3. Six Cooperating LEAs. The six LEAs chosen to work jointly with CVTE in creating CCEM were selected in the summer of 1971. Over 70 potential sites were nominated by the USOE Bureau of Adult, Vocational, and Technical Education. The candidate sites were reduced to 12 by a study of documents and the 12 finalists were site visited by expert panels. Six were chosen as having made a strong beginning in career education and as having the potential to join with CVTE in creating CCEM. Demographic information about the LEAs is available from the Center for Vocational and Technical Education, Brian Fitch, Project Director.

4. The Institute for Educational Development. IED is a non-profit educational research and development organization located in New York City and affiliated with the Educational Testing Service of Princeton, New Jersey. IED has served as external evaluator of the CCEM Project almost since its inception, first under sub-contract to CVTE and currently under contract to NIE. Among its other duties, IED is responsible for developing instruments and procedures for field testing CCEM curriculum units.

INTRODUCTION

IED believes that an appraisal of the CCEM goals entails two separate sets of questions: 1) What is the quality of the CCEM goals as an intellectual product, and 2) how acceptable and how useful are the goals in the opinions of various users? Moreover, IED believes that the answers to each set of questions need not be sought from the same sources and need not be related to each other.

The first set of questions has to do with the adequacy of the goals as an intellectual framework for the CCEM program: is there a logical structure underlying the organization and interrelations of the goals? Do the goals stand on a sufficient research base as to what students can and/or should learn for career success? Are the goals adequate to guide curriculum selection or curriculum development?

The second set of questions has to do with the acceptability of the goals to various consumers and practitioners whose endorsement of career education is essential to its ultimate adoption in the schools: Would school board members want to adopt the goals for the schools? Would professional personnel think it desirable as well as feasible to accomplish the goals? Would employers seek to employ high school graduates who had achieved the goals?

Two Conferences

Accordingly, IED conducted two separate two-day conferences involving two separate sets of participants, one conference to consider the first set of questions and another to consider the second set.

The first conference brought together a number of highly competent scholars to present and discuss commissioned papers treating the CCEM goals from viewpoints suitable to their backgrounds and specialties. That conference was held on March 13-14, 1973 at Airlie House, Virginia. It was attended by representatives of NIE, CVTE, and the LEAs. A more detailed description of the proceedings and results appears in the next section of this report.

The second conference convened representatives of a number of groups whose viewpoints about the goals of career education would be influential in determining whether the program would be widely adopted. These representatives came from scattered geographic locations and a diversity of backgrounds. They were asked to read the CCEM Developmental Program Goals in advance of the conference but were not asked to write formal papers. That conference was held on June 7-8, 1973 in Chicago, Illinois. It was also attended by representatives of NIE, CVTE, and the LEAs. The major viewpoints expressed by the participants are summarized in a later section of this report.

CONFERENCE 1

Nine Scholars Assess the Intellectual Quality of the Developmental Program Goals

Airlie House, Virginia
March 13-14, 1973

Nine recognized scholars were asked to prepare and present critiques of the goals from one of eight critical vantage points. (Because of the special interest NIE has in the utility of the goals for curriculum development, an additional paper was commissioned on that particular subject, making a total of nine papers for eight topics.) The scholars and the particular vantage points assigned to them for examining the goals are listed below:

Critical Vantage Point	Scholar
1. Logical Structure	EGON G. GUBA, Indiana University
2. Value Base	DAVID W. ECKER, New York University
3. Research Base	DONALD E. SUPER, Teachers College, Columbia University
4. Developmental Psychology	DOROTHY H. EICHORN, University of California at Berkeley
5. Utility in Curriculum Selection	W. JAMES POPHAM, University of California at Los Angeles
6. Utility in Curriculum Development	JOSEPH J. SCHWAB, University of Chicago (Additional Paper: ELLIOTT W. EISNER Stanford University)
7. Acceptability to the Profession and to the Public	ROALD F. CAMPBELL, Ohio State University
8. Future Relevance	SCOTT GREER, Northwestern University

After each scholar had presented his paper, his views were discussed by the other scholars in attendance.

The conference was chaired by David Hampson, director of the school-based Career Education Model for NIE. Members of the IED staff attended, as did observers from CVTE and the six LEAs. A complete list of participants appears in the front of this document.

Major Viewpoints Expressed by the Nine Scholars

Because each scholar was assigned a separate topic, their views cannot be consolidated or reported collectively. Indeed, the separate views of each scholar cannot be summarized readily. The papers appearing in the Appendix should be read in full.

If the conference were to be summarized in one sentence, it would be this: The nine scholars were not pleased with the CCEM goals. While they recognized the extremely difficult circumstances under which the CCEM developers did their work, they found their product unacceptable. The scholars, in short, refused to drop their quality standards in judging the CCEM set of goals because they were produced in haste in order to launch the project. While the scholars recognized that CVTE tried to serve what it thought to be the U.S. Office of Education's interest in creating a high-visability, nationally prominent project in a top priority area, the scholars said flatly that the government's real interests were poorly served by a contractor who acted against his own better judgment even if under government duress. They underlined the responsibility of the scholarly community in undertaking government contracts to give the government the benefit of their best advice and, if necessary, to refuse work that could not be successfully undertaken under the time and conditions allowed.

The following paragraphs will serve to give some of the flavor of the individual papers and of the discussion that followed each one during the conference. The statements are paraphrased (or quoted without specific indication) from the papers and from the remarks made at the conference.

Logical Structure/Egon G. Guba

There are at least six defects that can be characterized as primarily logical in nature:

1. Failure to elucidate definitively the purpose or goals of the model and matrix.
2. Confusion on basic theoretical orientations and operational terms.
3. Questionable appropriateness of the eight elements underlying the matrix, on the grounds of:
    a. Ambiguity surrounding their source.
    b. Likely invalidity of the claim that they constitute a necessary and sufficient set.
    c. Existence of contingent relationships among them that are not taken account of.

   d. Lack of explicated relationship to the developmental stages that are postulated as basic to the Career Education Model.

4. Lack of an adequate base for judging inclusion-exclusion of substantive elements of the matrix.

5. Lack of a sequencing-integrating mechanism that generates the grade level steps projected in the matrix.

6. Failure to relate the matrix or model to the criteria that the developers themselves propose.

Despite these flaws, the development of the CCEM goals represents an exceptional effort because of its attempt to be comprehensive, to involve different points of view drawn both from the literature and from the practioners in the field, to try Delphi techniques to keep all workers informed during a national effort, and so on. These procedures were better than one finds in a typical situation.

Although the substance of the goals is not very good, the organizational structure is quite good. The work represents a major starting point.

Value Base/ David W. Ecker

The Developmental Program Goals does not argue the case for career education; it merely asserts what its adherents desire in the way of goals, with no discussion of why these goals are desirable. The work denies the possibility of counter-arguments and thus of rational acceptance or rejection of it as a proposal for changing what happens now in the schools. Instead, it may act as a kind of Rorschach test for the political, social, or educational values held by the critics.

The work appears to be the offspring of a misalliance between the cognitive and behavioral approaches to curriculum building: It exhibits the defects of both parents and few of their strengths. No theoretical concepts are presented and no student behaviors described.

Because the theories which yielded the concepts which yielded the elements of career education are not identified, scholars as well as laymen are not able to check even for the accuracy of translation from theory to practice. At the other end of the scale, the 1500-odd goal statements are still not descriptions of observable behaviors. Thus, the reader (including prospective clients for career education) cannot critically examine either end of the continuum, from conceptual base to behavioral outcomes.

Questions concerning what is, what could be, what ought to be, and what will be the case in career education should be answered unambiguously in descriptive, hypothetical, prescriptive, and predictive language, respectively. And, ideally, scientific and philosophical inquiry would provide clear options for political, social and educational decisions.

The assumptions held by the authors are basically a combination of (1) the behavioristic belief that people will do what is good for them when they are rewarded for doing so, and what is good for them in the classroom should be determined by specialists and teachers; and (2) the cognitivistic belief that when people know what their career choices are, and which choice is good for them, then they will choose what is good for them, the range of choices being determined by the needs of society.

The proper balance of aesthetic and "practical" concerns is, of course, a central problem of contemporary life, and the value orientation of any curriculum reform will have a bearing upon this relationship.

Research Base/Donald E. Super

The methodology of establishing the concepts, themes and goals involves the use of experts, but their expertise is neither questioned nor made clear.

Evidence of the need for grade placement of, and traits underlying the elements, themes and goals is not adduced. A reader who knows the research in several related areas can recognize the implicit research base in many instances, the unsupported propositions in others, and the assumptions which are contradicted by available evidence in still others. The early expectation of self-awareness, the shocking shortness of the exploratory process, the premature postulating of definitive decisions and the poor provision for reassessment and re-evaluation, are examples of failure to make good use of the research base, failures which should make a cautious user of the Goals question every assumption. Briefly, those concerning Self Awareness, Career Awareness (as contrasted with Occupational, to create a new element) and Decision Making most often need questioning; those concerning Educational Awareness and Beginning Competency are occasionally to be questioned; and those concerning Occupational Awareness (to rename an element) Economic Awareness, Employability Skills, and Attitudes and Appreciations appear to this reviewer to be best supported by research.

Test authors are expected to report on the reliability and validity of their instruments, and test development specialists have carefully elaborated upon their constructs, methods, and ways of reporting concerning them. Is it too much to expect curriculum developers to do the same? The original and continuing contracts with the Center for Vocational Education at the Ohio State University may not have contemplated nor permitted development work on the scale which became necessary in order to achieve effectively the basic contract goals. The Center cannot therefore be faulted for these defects, but defects they remain.

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Developmental Pshchology/Dorothy H. Eichorn

Given the nature of the model and of developmental psychology, assessing the appropriateness of each goal for each element grade by grade is not feasible. First, one cannot really evaluate in terms of career education when the goals are stated in terms of occupational education. Second, the way in which many of the goals are stated is so general that the developmental level intended cannot be inferred. Third, whether some goals are to be implemented primarily through existing curriculum or through a separate curriculum with units for each element is not clear. Fourth, no developmental psychologist can be sufficiently knowledgeable about the data and theories bearing on all of the eight elements since the substantive topics encompassed by developmental psychology are too numerous and diverse. Fifth, not only is there no single definitive theory of development, there is no such theory with even so circumscribed a topic as socialization to sex roles. It is my observation that even the most thoroughly researched topics provide only a framework of successive levels, each of which spans an age (and, hence, grade) range. Sixth, in the absence of definitive data about the influence of experience and training, one runs the risk of confusing what is with what might be,given optimal conditions.

Under this set of circumstances, the most useful strategy is to outline problems or pitfalls in the goals and to summarize some of the most relevant findings from the research literature.

A number of the statements in the description of the elements imply a more advanced level of development than either empirical data or developmental theories now available suggest is typical. The goals may be inappropriate in either or both of two senses: 1) the level of conceptual ability required or 2) the degree of personal stability and integration demanded.

Research findings lead one to question at least three emphases in the CCEM goals: 1) the strong stress on the future, even for elementary school children, 2) the emphasis on monetary and status rewards which may "turn off" some students and parents, and 3) the pressure on teachers and students to determine "what the child is and wants". If teacher and pupil fail to discover what is "unfolding and blossoming," and if such failure leads to low self-esteem, the ultimate objectives will be thwarted.

There is too little attention in the book to individual differences in rates of development in the various elements, with no place for the late bloomer intellectually or for the late maturer with his associated retardation in social interests. The lack of attention to individual differences combined with the pressures noted above produce the danger that the goals will promote conformity and mediocrity. Translation of goals into a dictum of "Know thyself and please be realistic" not only leaves little room for the creative person but can also result in perpetuation of a caste system.

Utility in Curriculum Selection/W. James Popham

Developing the CCEM set of goals was far too ambitious. One suspects that this project represents the classic syndrome of the federal government's providing immense financial resources while failing to recognize that it takes time--a long time--to assemble a sufficiently large talent pool to accomplish the intended tasks. It appears that the project staff embarked on a tremendous effort sans requisite talent.

This is not an innocuous document which, as so many others of this sort, may be shelved quietly in curriculum library archives. It is a cornerstone document that may enhance or corrupt future CCEM acitvities. As such, the document will have to bear a heavy developmental load. And, unfortunately, this cornerstone appears to be made of pumice instead of granite.

One would expect a well documented rationale not only giving the reasons for formulating the goals in a particular fashion but also detailing the step-by-step procedures. On this score the document is completely unacceptable.

The goals are extremely general. Too many are better suited for projective tests than for inducing lucidity regarding instructional intentions.

Any defensible taxonomy must strive toward category delimitations which lead to mutual exclusivity and exhaustiveness. Neither of these characteristics is satisfied by the CCEM goals.

There is no analytical hierarchical structure which would permit curriculum deisgners to derive an instructional sequence or to determine how the 104 cells interact with one another. There are many overlaping or even contradictory goal statements. Statisticians and researchers have their beloved tables of random numbers. It is possible that CCEM has supplied career educators with a table of random goals.

For these reasons, the CCEM goals have little utility for selecting any kind of curriculum materials: standard textbooks, self-instructional products, or instructional units. For that purpose--but by no means limited to that purpose--the goals have almost no value.

Utility in Curriculum Development/Joseph J. Schwab

Certain faults are sufficiently conspicuous in the CCEM goals to be disturbing: 1) they omit or misrepresent aspects of the subject matter with which they deal (e.g., self awareness, decision making, economics), 2) they call for behaviors inappropriate to the age-grade level to which they are applied, 3) where sequences are involved, steps are overlooked or an entire sequence may be lost, 4) crucial terms are undefined, and 5) lesser terms are vague and, consequently, some goals statements approach meaninglessness.

Teachers will often struggle to produce curriculum materials and processes from goal statements so marred, but the likely outcomes are not promising. They may become frustrated and produce nothing; they may devise goals to replace those they cannot interpret; they may create something which is miseducative or non-educative. Goals may arise from the values held by the planning group, from the values held by someone else for whom the planners are writing goals, or from the values underlying a central idea from which the planners try to elaborate goals. Whatever the case, the problem of deciphering broad values--even those held semi-consciously by the planners themselves--is extremely difficult. Moreover, formulating goals for education involves interpreting and applying facts from the behavioral sciences--sociology, psychology, anthropology, personality theory, economics, and so on.

The deciphering of broad values and the selection, joining, and application of facts from the behavioral sciences are both exceedingly difficult.

Apart from those difficulties, broad values are not widely shared in the pluralistic American culture. Teachers and curriculum makers are likely to have a value set which differs significantly from the planners who provided them with the goals. Most certainly, different groups of teachers and curriculum makers--urban and rural, suburban and inner city; Protestant, Catholic, and Jew, Eastern European, Scot and Southern Italian--will owe allegience to different sets of values. Thus teachers and curriculum makers are unlikely to produce curriculum which correspond to the wants of the planning group.

Two additions to the CCEM goals would help clarify communication between those who wrote the goals and those who are expected to use them. One would consist of brief treatises (10-20 well-phrased, printed pages) on each of the eight elements. Such an addition would not only improve communication, it would improve the set of goals by confronting their writers with the problem of estimating their own mastery of the subject under discussion, giving them an occasion for clarifying and adding to that mastery, and providing them a basis for identifying and correcting poorly phrased and incomplete goal statements.

A second addition would consist of curricular bits (a lesson-plan, a description or transcript of a few minutes of instruction) which indicate at crucial places in the set of goals what is and is not intended by the goal statement.

Finally, goal statements are brief descriptions of forms to be imposed on children. When the goal statement is unqualified, it suggests a "universal" form to be imposed upon all children alike, regardless of differences which may exist among them. Yet children do differ and goal statements ought to take that into account. The proposer of goals ought to identify ways in which children are likely to differ from group to group and how the goals ought to be modified or qualified accordingly. There is little of this in the CCEM goals.

Utility in Curriculum Development/Elliot W. Eisner

Perhaps the most significant problem in the first section of the document is the lack of clarity concerning the central concept around which the work is based--career education. Although in some places career education seems to refer to preparation for the world of work, in other places it seems to suggest a much broader set of goals, goals which refer to the development of avocational interests and general intellectual skills not specifically related to the world of work. While the document says that career education is not the same as vocational education, it does not offer a well-argued conception of what the differences are and in what way career education differs from what is now provided in school programs. It is not clear whether the heart of career education is to provide vocational guidance to students, to develop certain habits of mind that will make them economically productive, to help them learn to reflect critically on life as their major career, or to provide an exploration of various occupations so that students can select ones closest to their interest and aptitudes.

The document does not argue for the inclusion of career education in school curriculum. The "rationale" that is provided in the document is not an argument, but a listing of goals and a description of the elements used to generate them. The work needs both a normative conception of desirable educational ends and practice and the necessary empirical data that provide factual support for the values espoused.

There is ambiguity as to whether the career education curriculum is an independent "subject matter" curriculum, something like driver education, biology, or ecological studies, or whether it is to be integrated into existing subject matter curricula. If the goals are to be used to develop curriculum, this must be clarified.

It is also not clear what is meant by a comprehensive career education model. Does "model" mean a description of the parts that constitute career education curriculum, or the arrangement of the parts and their interaction, or a description of the grounds for including the eight elements?

The mission statements are useful for enabling educators to obtain a general sense of what is being emphasized grade-by-grade. Although it is difficult to know whether the mission statements are viewed as necessarily sequential grade-by-grade, they are useful as a basis for generating the goal statements that follow from them.

Can the document be used to develop curricula? The answer to that question is yes, but the answer needs to be qualified in several ways:

1) The book gives no set of transformation rules or curriculum logic that enables one unambiguously to formulate resources, cues, settings and materials that are deemed a) related in some psychological way to the goal, and b) useful in facilitating student learning toward that goal. There is no logic given for the curriculum developers to check out their judgments about what learning activities and materials would be needed to accomplish the goals.

2) Given a curriculum development team with high levels of intelligence, good experience in curriculum development and skill in developing learning opportunities that are attractive to students and teachers, the goal statements are useful.

3) School districts that use the document to develop curriculum materials--for these will be needed in addition to printed syllabi--will need to provide consultation, in-service training, and supportive supervision to classroom teachers.

Acceptability to the Profession and to the Public/Roald F. Campbell

I think the CCEM goals are an example of over-reach, over-promise, and over-kill. Over-reach is found in the attempt to make career education the total school program. I do not believe that all of education should be utilitarian in nature. There is a world of art, of music, of thought, as well as a world of work. Over-promise appears in the words "a new educational strategy that will ensure that upon leaving school students will be prepared for career pursuit whether it involves direct employment or continuing education". I see no way by which the outcome can be guaranteed for all persons. Over-kill exists in the 1,500 goal statements. The generation of themes, cells, and items seems to have become a game, perhaps satisfying to the developers but completely unworkable to the teachers.

I am concerned about the assumptions which appear to underlie the goals. Here are several I would reject:

1) Our industrial system and the work arrangements in it are givens. The system itself is not to be questioned. Rather, persons are to be prepared to plug into it.

2) The world of work seems to constitute the whole of life. Apparently, there is no place for the world of leisure, the world of aesthetics, or the world of thought.

3) Education is to be completely utilitarian in nature: the school is to make preparation for work its central thrust.

4) Learning is a matter of direction; there is almost no mention of learning as a matter of discovery.

5) Curriculum makers will decide what is to be taught and teachers will be told to teach it. There seems to be no place for the teacher as a wise adult, as a diagnostician, as a program planner, as an arranger of the environment, or even as a warm person.

As to the acceptability of the goals, I see the profession much divided with most teachers likely to ignore the projected program. I see students who experience good teaching in the program finding much of it acceptable. But since relatively few teachers are apt to accept and effectively implement the program, not many students will likely have the option of accepting or rejecting it. As to parents and the public generally, I think the reaction may be mixed, with many parents rejecting the program once its full import is understood.

Here are some modifications which might make the goals more acceptable:

1) Correct over-reach. Instead of career education attempting to take over both academic and vocational education, it might be defined more precisely to include only career awareness and career preparation. This would assume the existence of other main threads in the total school program.

2) Correct over-promise. While the school can probably help some students get ready for the work world, it cannot ensure a place for all. There are too many other variables affecting the employment situation.

3) Correct over-kill. Thirteen grade level differentiations seem quite impossible; perhaps divisions of K-3, 4-6, 7-9, and 10-12 would be more realistic. Also, if the definition of career education were restricted, at least half of the eight elements and half of the 32 themes could be dropped. Collapsing grades and eliminating elements could reduce 416 cells to 64 cells.

4) Modify the implied basic assumptions so that the world of work is not the total world and the total purpose of the school is not simply preparation for the world of work.

Future Relevance/Scott Greer

Let us look at the projected world, the projected program, and the consequences of their combination.

First, we can expect a continual increase in the symbol-using, people manipulating, service oriented work-force. Second, we can expect a continuing increase in the number, size, and power of bureaucratic groups.

Consequently, privilege in the future will not be very different from what we know; it will be based upon the degree route, and that is exactly what we are given in the CCEM goals document. The model is a good, logical statement of what is generally believed. It departs in some ways from the decalogue and does so in good ways. Thus, I like (1) the notion that people can be taught conceptual thinking early and can therefore develop great power to generalize which (2) gives them great flexibility in handling a wide range of contingencies in the future and (3) allows tentative solutions which are conducive to (4) future growth.

However, what kind of product can we expect from this kind of regimen? We have the other-directed person here and with no apology: the homonculus who emerges looks very much like a good union man in a mass industry where not much happens outside the mechanical goods-flow; he looks like the very likable and efficient public servant; he looks, above all, like the very successful public school teacher. I suspect Delphi does, indeed, give you back Delphi.

However, the program is weak in that it does not really tell a neophyte how to make it or, failing that, how to make out. We should be quite candid about what makes our system work, alerting the neophyte to such factors as these:

1) A basic assumption of all bureaucracies is that the preservation of the control system takes precedence over any objective output of the system. A basic assumption of all bureaucrats is that the preservation of their own place in the role system takes precedence over all objectives of the system.

2) Unofficial rewards are what makes the system go. If you want individual contributions, you have to reward them. All organizations do by graft, corruption, or more generally favoritism.

3) Promotion is not usually a result of what grades you make on a test; "non-universal" criteria frequently determine whether or not you make it. We should teach neophytes how those criteria can kill them.

4) Age, sex, ethnicity, and education can work for you or against you in the world of work. For instance, woman and men always operate in a world in which the dimensions of sexual attractiveness is a factor.

5) Corporate groups control jobs, protect their assets, and organize privilege. Take the Rockefellers and Katanga. Take the labor unions.

I had the terrible feeling as I read the goals that we were dealing with a system within which the docile taught docility, but a competitive docility. Like Soviet bureaucracy, it has all the faults of collectivism but few of the virtues. It could teach conformism yet have little place for the collective good, the public interest, the human race. There is little concern for social warmth, protection of others, for plain communion. It would perpetuate grade competition and lukewarm tolerance with, I am afraid, Devil take the hindmost. Yet it does go along well with Riesman's notion of the other-directed society, the world of get-along.

One of the most glaring omissions in the CCEM scenario is educating our young people for poverty. What are they to do about unemployment, about jobs that pay less than welfare? Is the army preferable to welfare? What poverty career leads to the best old age pension? At what point is it preferable to emigrate, and if so to what place?

Finally, I question the enormous burden of self awareness built into this model. Our people lack, for the most part, the ego strength to withstand knowledge of the full force of social change. Where is this treated in the CCEM goals? Where is the character that withstands the winds of doctrine, the tides of change? Are we to continue an education which increases man's knowledge without increasing his wisdom?

CONFERENCE 2

Six User Groups
Assess the Acceptability and Usefulness of the Developmental Program Goals
Chicago, Illinois
June 7-8, 1973

Carefully selected representatives of six potential adopters of career education goals were convened and asked to react to the CCEM Developmental Program Goals. The participants were thought to represent groups whose ultimate decisions about the values and goals of career education would be decisive in shaping the future of the movement:

State legislators
Local school board members
Employers
Union leaders
Local school superintendents
State teachers' association/union leaders

The participants were asked to address themselves to the major structural features of the set of CCEM goals and to give their judgments about their value and feasibility. The features brought to their attention were these:

Elements
Themes
Mission statements
Goals at each grade level

Participants met in six separate groups for some sessions and in three small mixed groups or as a total group for others. They developed their own views and heard and reacted to the views of others at the conference.

The conference was chaired by Henry M. Brickell, IED Project Director for the external evaluation of the CCEM program. Members of the IED staff attended, as did observers from CVTE, the LEAs, and elsewhere. A complete list of participants appears in the front of this document.

IED opened Conference 2 by presenting an overview of the CCEM program, giving a brief description of its sponsorship, purposes, history, and major products. Special attention was given, of course, to the Developmental Program Goals. The purposes of the CCEM program staff in creating this set of goals, the method used to create the goals, the many uses to which they have been put thus far, and the organizational structure of the publication itself were all explained.

A few brief illustrations of how the goals have been translated into classroom practices and curriculum materials were given the participants to demonstrate how the instructional program might work in the schools. This step seemed necessary for the laymen present.

At the opening of the conference, each participant took a pretest in which he demonstrated what he knew about the set of CCEM goals. The pre-test asked him to identify the grade levels at which career exploration, career awareness, and career preparation are to be accomplished, to identify the definition of each of the 8 elements, to link a sample of the 32 themes to their related career elements, and to connect a sample of the 104 mission statements to their related career elements. After the pre-tests were administered, the correct answers were supplied and discussed.

The entire exercise was intended to acquaint the participants with the basic vocabulary of the Developmental Program Goals and to alert them to the importance of key concepts in the intellectual structure of the goal set. An examination of the pre-test results by the IED staff at the close of the conference indicated that the participants had indeed been attentive during the exercise and had accurately corrected their own answer sheets where they were in error.

All participants were supplied a copy of the Developmental Program Goals prior to the conference. However, on the assumption that most would not have studied the over one thousand goals contained in the book before arriving, IED required all participants to examine a substantial portion of the book during the conference itself. To accomplish this, an appreciable part of the time was devoted to silent reading. Thus the IED conference leaders insured that each participant became familiar with the 8 elements, the 32 themes, the 104 mission statements, and a substantial sample of the several thousand goals associated with various grade levels.

At the conference, the participants--state legislators, local school board members, employers, union leaders, local school superintendents, and state teachers' association/union leaders--met separately by user groups to consider some of the questions posed to them. This was done so as to detect any distinctive viewpoints among the separate groups before bringing them into joint sessions.

At other sessions, participants met in small mixed groups to consider certain questions while at some sessions all were brought together to hear the opinions arrived at by the separate groups. The purpose of mixing the groups was to allow the opinions of one group to influence those of other groups and to test whether the groups maintained their differences or converged toward common viewpoints.

Accordingly, this report contains the views of the six groups expressed independently as well as the views of the six groups expressed jointly.

This report is organized according to the questions which the groups were asked to answer during the conference. The views of each group are assembled under each question, whether they were reached independently or whether they were expressed by representatives during mixed-group discussions. The use of mixed groups during one of the sessions did not permit the separate identification of group viewpoints; thus the views of the total group are reported.

VIEWS OF PARTICIPANTS

ELEMENTS in the Developmental Program Goals

Eight key elements constitute the eight major areas into which the goals for the program are organized:

Career Awareness
Beginning Competency
Attitudes and Appreciation
Self Awareness
Economic Awareness
Employability Skills
Educational Awareness
Decision Making

QUESTION 1

a) Should career education consist of the eight elements in the matrix?

b) What elements needed for a career-educated person are missing?

c) Are some of the elements more important than others?

State legislators said that the elements were well defined and that all should be retained in the program design. The legislators viewed the eight elements as a coherent set which would be broken if any were ommitted. They said that each element was fundamental. While they acknowledged that additional elements might enrich the set, they were unable to suggest any others.

Local school board members, meeting separately, arrived at the same conclusion as the legislators. They said that the eight elements constituted a total delineation of career education, embracing every aspect of a good program. However, the board members regarded every element as being equally important. They did point out, however, that the description of the Career Awareness element did not state forcefully enough that every student should be taught that no career is closed to a student because of his race or sex.

Employers found no fault with the eight elements, regarding them as covering everything that ought to be attempted. They did note that while no elements are missing, the significance of each one might vary at given age levels or for different individuals.

Union leaders found difficulty with the elements or--more exactly--with what they saw to be the philosophy of the CCEM program. They saw the elements as being heavily vocational in flavor--for example, they feared that Career Awareness would bring music to a child's attention only as a possible career choice rather than for its larger values. They saw the elements as framing a program intended to train children to fit into existing social patterns. And they saw the program derived from the elements as asking children to narrow their career preferences rather than broadening them by age 11 or 12.

Union leaders called for the addition of an element dealing with creativity or individual thinking and for the redefinition of Decision Making to include learning how to make decisions affecting one's individual sphere in the community.

In short, union leaders felt that the elements as defined for the CCEM program tended to maximize social conformity and to limit options too early while minimizing creativity and the power of an individual to influence his social surroundings. Union leaders repeated these concerns periodically throughout the conference.

Local school superintendents found the eight elements to be quite comprehensive. They expressed satisfaction that even a 10th grade dropout would have been exposed to all of them before leaving school. However, they noted that Economic Awareness should be accompanied by an awareness of the socio-political aspects of the social system and said that perhaps an additional element was needed to represent this factor. They ranked Self-Awareness, Decision-Making, and Attitudes and Appreciations as the three most important elements.

State teachers' association/union leaders found the eight elements to be constructive, valid, and complete. They found none missing. They did express the view that some elements are more important than others, depending on grade level. In the elementary grades, they said, Self-Awareness and Educational Awareness outrank the other elements, while in the higher grades, Beginning Competency, Employability Skills, Career Awareness and Economic Awareness outrank the remaining elements.

QUESTION 2

a) Should attention be given to each element in each one of the school grades, K-12?

b) Which elements might be delayed until higher grades such as grades 10-12?

c) Which elements might be delayed until after high school graduation?

State legislators held definite opinions about this: each element should be given attention in every grade K-12. They said that a well-designed career education program could supply a strong learning motiviation to kindergarteners as well as to high school seniors. They advised against delaying any one of the eight elements until the senior high school years. And they urged that none of the elements be delayed until after high school graduation, inasmuch as not every graduate would go on to further schooling and thus not everyone would be assured of receiving all the necessary elements for a sound career education. Overall, the legislators found the elements to be sensibly elaborated at each of the grade levels and said of the authors of the set of goals, "They've done their work very well".

Local school board members, who often arrived separately at the same conclusion as the state legislators, concurred that kindergarten was the place to introduce each of the eight elements in the CCEM goals. They shared the view of the legislators that career-related education can be motivating for children at every age and grade.

The board members pointed out that since the CCEM model of career education intends to infuse career concerns into the teaching of every subject at every grade level rather than to construct separate courses and operate separate classes dealing with careers, there need be little concern about the dilution of basic skill learning in the primary grades. They felt that primary teachers would not be distracted from their responsibility for basic skill teaching by the addition of career concerns but could incorporate these without taking an appreciable amount of time from their fundamental work.

Employers also felt that each of the eight elements should be taught at each of the thirteen grades. They said that the entire set of career concerns were appropriate, even for very young children. As to delaying some elements until the post-secondary years, employers said that "none should be held until after graduation." They explained that by the time a young person reaches age eighteen--or drops out of school early at age sixteen--he should have been exposed to all the elements of career education incorporated in the CCEM set of goals. The view that even high school dropouts should have had a sound career education was brought up repeatedly during the conference by various groups.

Employers thought that some schools could move faster than others in accomplishing the goals associated with each of the eight elements, thanks to the kinds of students enrolled or the quality of the teaching staff, but they said that every school should do as much as it could as soon as it could.

Union leaders, continuing to press their view that career education should increase options for students and delay final career decisions as long as possible, said that career exploration should be continued through grade 12. (In the design of the CCEM program, grades 7-9 are specifically designated as the years for exploring career possibilities while grades 10-12 are designated as the years for preparing for career choice.) Union leaders said that the schools should teach students fundamental intellectual skills along with the awareness of self, careers, the relation between schooling and careers, and the relationship between the economy and careers. That is, the schools should teach "fundamentals and awareness". They said that skill training for specific jobs should be delayed until after high school graduation. Again, this view was consonant with union concerns about early narrowing of career choice. It also seemed to reflect a fear that specific job training during the high school years would overlap or compete with job training programs already available to high school graduates under union or employer sponsorship.

Local school superintendents were of the definite opinion that each of the eight elements should be included in each of the school grades, K-12. They said that none should be delayed until the upper grades and that none should be delayed until after high school graduation. They said during this discussion, as they did elsewhere during the conference, that every high school student, whether he dropped out early or graduated should be given a comprehensive program of career education.

School superintendents felt that the diagram appearing in the Developmental Program Goals made a too-sharp distinction between the school grade clusters in seeming to assign career awareness to grades K-6, career exploration to grades 7-9, and career preparation to grades 10-12. They said that flexibility was necessary, that these purposes needed to overlap among the various grade clusters, beginning earlier or continuing later as the needs of a particular student population or even individual students dictated.

State teachers' association/union leaders said that while all elements probably should be included in instruction at all grade levels, it might be desirable to make some differentiation in emphasis. They offered the following as a possibility:

Element	Points of Emphasis
Attitudes and Appreciations	K-12
Self Awareness	K-12
Decision Making	K-12
Employability Skills	7-9
Career Awareness	10-12
Beginning Competency	10-12
Educational Awareness	10-12
Economic Awareness	Build this into the other 7 elements in grades K-12. In grades 9-12, link specific economic information to Decision Making.

QUESTION 3

> Should every subject field in the school curriculum embody career elements: English, social studies, business and distributive education, math, science, foreign languages, trade and industrial courses, art, music, health, physical education, and driver training?

State legislators agreed unanimously that every subject field should contribute to the eight elements of career education. They can find no exception. The teacher of every subject could and should, in the opinion of the legislators, contribute to a student's awareness of his own potential, inculcate desirable attitudes and appreciations, increase his skill in decision making, relate the subject to its utility in various careers, and in other ways enrich the student's career education. The legislators--two of whom, incidentally, had had teaching experience--said that every good teacher wants to stimulate student interest in his subject. They said that when the benefits of embedding career concepts into all subjects are pointed out, good teachers will be eager to adjust their programs.

Legislators recognized that teacher retraining might be required and noted that a certain proportion of the teachers might never be reached. They said, for example, that some teachers near retirement might not respond, even with careful in-service training.

Local school board members stated that relating subjects to careers would tend to make those subjects more meaningful. Thus they favored embodying career elements into every possible subject. They said that some subjects might not be able to contribute to all eight elements of career education but they felt that career content could be infused into many areas in most subject fields.

Employers said that "None of the faculty should be permitted to presume their subject isn't related to career education". They said that teachers should be encouraged to try, insofar as possible, to incorporate the eight elements of career education into their classroom instruction. While the employers felt that there was a question of feasibility for some subject fields, the objective of embodying career elements into all of them is laudable.

Union leaders agreed that the eight career elements should pervade all school subjects and should be a part of the instruction of every school child. They added that every child should be exposed to all school subjects, no matter what his apparent destination in life. This recommendation underlined the persistent concern of union leaders that all doors be kept open for all students.

Local school superintendents strongly supported the view that the eight elements should be wound through all subjects in the school curriculum. They were somewhat more sensitive than the other groups to the massive in-service training that this would require and expressed concern about it. However, their concern about the feasibility of supplying the necessary training was offset by their hope that a career emphasis could break the traditional approach to subject matter that characterizes most schools. In short, they found the infusion of career concepts into all subject fields as being difficult to accomplish but well worth attempting.

State teachers' association/union leaders accepted the proposition that career elements should touch all school subjects. They expressed special interest in having all subjects contribute to one particular element, saying that "Awareness is the key to all career education". They said that awareness of self, of social surroundings, and of career opportunities could only be accomplished by starting early and continuing throughout schooling. Their primary interest was in seeing that all school subjects enhance such awareness in all pupils.

QUESTION 4

> Are the elements of career education suitable for all students: boys and girls, college-bound and non-college-bound, academic and vocational, bright and dull, advantaged and disadvantaged, ethnic majority and ethnic minority, normal and handicapped, urban, suburban, and rural?

State legislators said flatly: "We all agree that the elements apply to every category of students and to the same degree to all of them." They called the elements not only suitable but actually necessary for all students.

Taking special note of college-bound students for whom some observers may feel that career education is not necessary, legislators said that infusing career concepts into elementary and secondary education "would eliminate that waste of tax dollars and that waste of time for students who go to college and take two years to make a decision".

Local school board members said that the eight elements should be included in the education of all students, no matter what their ability, background, or apparent destination after high school graduation. They said that the elements might have to be applied differently in instructing different categories of students, but that they should be included in the education of all.

Employers saw career education as a desirable alternative to the present pattern in which parents and the school decide which children will have which opportunities, thus partly predetermining their futures. Employers saw career education as a way of making identical opportunities available to all students. Thus they definitely favored career education for students of every type, without exception.

Union leaders echoed the views of the employers, saying that all eight elements of career education should be incorporated into the instruction of all kinds of children. Otherwise, they said, any selection procedure for deciding which students would get which aspects of career education entailed the risk of depriving some students of the education best for them. Union leaders repeated their view that career education was not only desirable for all students but should be provided at all grade levels.

Local school superintendents endorsed the eight elements of career education as being right for all students. "One of the biggest problems we have in this nation is the underutilization of talents," they pointed out. Career education as defined in the CCEM Developmental Program Goals struck them as a sure way of developing the talent of all students and assuring that it would be applied in productive and satisfying ways.

State teachers' association/union leaders arrived independently at the same view as the other groups: the elements of career education as described in the CCEM program are suitable for all students, without exception. These representatives continued in the discussion to emphasize their view that Awareness of Self and Awareness of the World of Work is essential for all boys and girls, regardless of ability, background, or future plans. It was the elements of career education leading to wider awareness that most attracted the enthusiasm of the teachers' association/union leaders.

QUESTION 5

> Do the elements of career education add to what is already in the school curriculum or do they duplicate what is there?

State legislators, along with most other participants, recognized in their discussion that the design of the CCEM program has two features: 1) it incorporates new concepts into the school curriculum, and 2) it does so by infusing these concepts into other subject fields. Thus while it adds to what is already in the school curriculum, it does so in a method which duplicates the present curriculum. That is, CCEM would not dislocate or replace the present program but would continue it in enriched form. That is, in any case, the program design as outlined in the Developmental Program Goals, from which the participants drew their impressions of CCEM.

Legislators recognizing the two major features of the CCEM design, said that the elements both supplement and duplicate what is already in the school curriculum. They were, however, particularly impressed by what was being added. In the views of the legislators, "A majority of students are not exposed to these ideas now." Accordingly, they thought of career education as bringing a significant supplement to traditional school instruction.

Local school board members arrived independently at the conclusion that career education both extends and duplicates present offerings. They pointed out that some districts already have goals similar to those in the CCEM program, although they are not often pursued in an organized, sequential fashion. They thought that the eight elements of career education would be particularly enriching for certain other school districts that presently do little with career education concepts.

They saw career education as a sound organizing framework for all school districts, including those that now pursue career objectives unsystematically.

Employers found the elements of career education as described in the CCEM publication as both supplementing and duplicating the current curriculum and noted that "there is nothing wrong with that". Some schools and some teachers, in the opinion of employers, already do a good job in career education but most would be strengthened by giving careful attention to the eight CCEM elements.

Employers saw the two problems that might arise in trying to introduce the CCEM elements into existing school programs:

1) some teachers will not want to modify their existing courses to incorporate career concepts

2) infusing career concepts into all subject fields, particularly in grades 10-12, may conflict with certain out-dated vocational education courses. Some of these courses, according to the employers, are conceived as if the entire responsibility for career instruction rests with vocational education specialists.

Despite these possible problems, employers endorsed career education as suitable for all schools and all students.

Union leaders saw the eight CCEM elements as introducing a change of emphasis in the existing program, not as adding an entirely new area and not as duplicating what is already being done. They warned against attempting to introduce career education as a slogan without substance, saying that if career education is really going to work, "We need significant changes, not cosmetic reform, in what students are exposed to. We probably need some change in the sequence in which they are exposed. And we certainly need a broadening of exposure to and the knowledge of career opportunities".

Union leaders pointed out that schools/employers/union cooperation would be essential for the successful introduction of career education. They said that not all teachers would receive such an idea favorably. Teachers already have a good deal to do and some of them may not want to change, they explained. "The measure of a teacher's dedication lies in how far he is willing to go with this new approach."

Local school superintendents said that a program incorporating the CCEM career elements would both add to and duplicate the current curriculum. They saw this double effect as desirable. Such a program would "provide the meaning and the structure to the entire curriculum and would give existing courses relevancy," they thought. Thus the superintendents reflected the opinions of most other group in seeing career education as enriching while it replicated the current curriculum.

State teachers' association/union leaders saw the eight CCEM elements as partly duplicating what is already available in school programs, yet they recognized some new ideas and some new content. The leaders repeated a concern expressed by other groups periodically during the conference: "all kinds of kids should have access to all kinds of careers."

The leaders expressed some doubt about the feasibility of accomplishing the kind of teacher retraining necessary to add career concepts to all grades and all subjects, a concern expressed earlier by the local school superintendents. They pointed out that there are two million school teachers, most or all of whom would need some retraining. While they favored the concept of career education as a universal program, they were not certain that schools could supply the amount of retraining necessary to bring it about.

THEMES and MISSION STATEMENTS in the Developmental Program Goals

Thirty-two themes appear in the set of goals as represented by the repetition of goals at successive grade levels. Generated by grouping goals with common content extending across all grade levels, these themes stand as a further definition of the eight elements described earlier. Several themes are associated with each of the eight separate elements. For example, one of the themes in the element Career Awareness is this:

> The student will understand the variety of occupations found in the world of work.

The existence of this theme indicates that making students aware of occupational variety is a goal that reappears at all thirteen grade levels.

After the participants had familiarized themselves with the themes associated with each of the eight elements, they were asked to discuss the following questions. Since the participants were divided into three small mixed groups to consider these questions, their answers represent the general opinions held by the representatives of each of the six groups, arrived at jointly during discussion. Thus the opinions held by representatives of one group could have influenced the opinions held by other representatives.

QUESTION 6

a) Do the themes define each element clearly?

b) Do the themes overlap with themes in other elements?

c) Are the themes worth accomplishing for all students?

d) Which themes are most important?

Most participants believed that the themes do serve to give better definition to the eight separate elements. They found the themes to be clearer and more specific than the mission statements and to supply useful guidance to curriculum planners and teachers.

There is little overlap among the themes from element to element, but there is a degree of overlap among the themes within a single element, according to those at the conference. A few individuals felt that the element Attitudes and Appreciations cannot be achieved in isolation from the other elements. They said that attitudes and appreciations cannot be taught directly but must be arrived at by students as they learn other things. They saw this not as a matter of undesirable overlap but as using some elements as the instruments for achieving others. Some participants pointed out that the existence of the theme means that there is repetition among goals from grade to grade. The theme is, in effect, an abstract statement of the idea common to a related string of goals. These participants objected to the repetition of similar goals from grade to grade, feeling that it made the Developmental Program Goals more difficult to read and objectionably long. Moreover, they said that the format of the publication gives readers the misleading initial impression that the goals at each grade are unique to that grade. They suggested that the publication be modified by publishing goals only for selected grade levels--such as K, 3, 6, 9, and 12. Readers could then interpolate the missing goals. The resulting publication would be shorter, clearer, and easier to use.

The themes are worth accomplishing for all students, according to the participants, reflecting what they had said about the eight elements during earlier discussions. But they questioned the feasibility of achieving all themes for all students, just as they had earlier questioned whether all students could be successfully career-educated in the eight dimensions represented by the eight elements. Nevertheless, they continued to endorse the proposition that the schools should attempt to accomplish all thirty-two themes for all students. They regarded the objectives as entirely worthwhile and as a suitable target for all students. Participants were asked which themes they regarded as most important under each element. While there were a number of individual statements of preference, there was no consensus. Moreover, a majority of the participants did not feel that such general discriminations were in order, believing that differentiations should be made school by school and student by student rather than establishing a single set of priorities.

One hundred and four mission statements summarize the set of goals associated with a given element at a given grade level. These mission statements describe concepts about which the student should become aware, ideas he should explore, and activities he should be able to perform. For example, the mission statement for Employability Skills at grade 12 is this:

> The student meets the requirements necessary for career entry. He applies personal data to potential career situations and communicates effectively with perspective employers.

Once the participants had read the mission statement, they were asked to discuss the following questions about them. Because they were not divided into six specialized groups for this discussion, the answers they gave were subject to influence by representatives of other groups attending the conference.

QUESTION 7

a) Do the mission statements clarify what the other elements mean?

b) Are the mission statements sequenced in sensible order?

c) Are the mission statements worth accomplishing for all students?

d) Which mission statement is most important?

Participants seemed to find the mission statements less useful than the themes. As indicated above, they found the greater specificity of the themes to give them a clearer meaning.

Nevertheless, they indicated that the mission statements do serve to clarify the meaning and the boundaries of the elements to which they are assigned.

When asked about the sequencing of the mission statements, a number of persons objected to their assignment to single grade levels. This was consonant with their earlier belief that differences among schools and individual students are so great that the exact assignment of an abstract goal to a single age or single school grade is unrealistic. They saw the goals as being accomplished in an inexact sequence and at an uncertain rate of speed depending upon variations among schools and individuals.

Several others expressed the view that the mission statements contain expectations higher than most children can meet in the early grades and that the gap between expectations and realistic chances of accomplishment grows as the grade levels advance. They suggested that the mission statements for grade 12 are unreasonable for 17-year-olds or even for 60-year-olds. Others disagreed, emphasizing their hope that if career education is properly begun in kindergarten, the mission statements can perhaps be realized in the later grades.

Despite some doubt about the realism of the mission statements, most participants agreed that they are worth achieving and that the schools should strive for them. Most participants distinguished between goals and expectations and felt comfortable in setting the former higher than the latter.

Participants were not willing to rank some mission statements as being more important than others. They said, as they had earlier, that such a question could be answered more sensibly for a single school, better still, for a single individual than for all students.

The general discussion of the themes and the mission statements indicated that representatives of the six groups at the conference did not have a great deal of interest in fine-grain distinctions among abstract statements of goals. They felt that precise sequencing of goals could not in fact be achieved for any large number of schools or students. What they tended to emphasize--although it is not reported in the preceding summary of their discussion--was their overall sense of satisfaction with the values inherent in the CCEM goals and the appropriateness of these goals for all students regardless of grade level, ability, background, or probable future course in life.

TERMINAL POINTS in the Developmental Program Goals

The organization of the CCEM goals set is such that the profile of a career-educated student is presented at each one of the grade levels. As a way of directing the attention of participants to a sample of specific goal statements among the 1500 contained in the book, and as a way of having them examine the ultimate objective of the entire K-12 program they were asked to look at the goal profile for students exiting from the program.

QUESTION 8

Assume that a boy or a girl has graduated from high school at age 17. Look at the goals for grade 12.

a) Is this what he or she should be able to do?

b) Can the 17-year-old go directly into a job and be successful?

c) Is he ready for specialized vocational training or an apprenticeship?

d) Is he ready for a liberal arts college education?

e) Can he make better choices of a job or a school than today's typical 17-year-old high school graduate?

f) Are these goals too much to expect of every 17-year-old?

g) Are they enough to expect?

State legislators agreed firmly that a high school graduate should be able to perform according to the goal profile for grade 12. But they agreed that such expectations were extremely high and said "This program would have to be much more effective than others in the past to begin to do this stuff." Some thought that with good personal and career counseling a student could exhibit the desired profile. To repeat, there was no disagreement about the goals themselves. One participant said, "I would be very pleased if we could design a system which would deliver that." Another said, "They were on the right track when they set these goals."

Legislators said that any 17-year-old who exhibited the goal profile prescribed for grade 12 could be immediately successful in a job upon graduation. One said, "If he can do 50 percent of what's on this list he will be very successful". Another said, "He would be super-successful if he had mastered most of the eight elements as defined here".

Legislators agreed that a student graduating from the 12th grade of a CCEM program would be ripe either for vocational training or an apprenticeship.

As to his preparation for a liberal arts college education, they said "He would not have any problem there".

"Someone who has had this kind of career education K-12 would be in a much better position to make decisions than today's typical graduate." "This high school student at 17 years old would be in a better position to make a decision than the 2-year college student of today." Such remarks were typical during the discussion.

The goals set for the grade 12 student are extremely high yet admirable, according to legislators. A student achieving half of them would be doing very well. Again, legislators did not call for a dilution of the goals but for realistic expectations.

As to whether the goals should be set at an even higher level, legislators said that they were quite satisfied to leave the goals as they stood. They said, "These goals will not limit any student. They are a pattern to go by." "Some students may achieve more."

Local school board members found the 12th grade profile to be fully desirable but not necessarily feasible. They said it would be impractical to expect all the students to accomplish all the listed goals. Thus, like the legislators, their admiration for the goals was balanced by their doubt about whether they could be fully accomplished.

Any 17-year-old who had accomplished the goals set for him could certainly succeed in his first job after high school, according to the school board members. Or he could successfully enter specialized vocational training or an apprenticeship.

Board members felt the student would be ready for a liberal arts college education, but noted that if he exhibited the intended goal profile, "it might influence his preference for a career" and he might not choose college.

A successful graduate of a CCEM high school could surely make better choices of a job or a school than today's typical graduate. The goals listed for grade 12 are too much to expect of every 17-year-old, although aspiring to such goals "can't hurt." "As much of this as they can get would certainly make them better prepared," said one.

The grade 12 goals are too much to expect because they go beyond the capabilities of some 17-year-olds, board members said. Yet they recommended exposure of all students to a program based on such goals to make certain that they would at least be aware of the concepts contained in the program.

Employers regarded the grade 12 goals ideal in general concept even if not achievable for all students in everyday practice. However, they expressed concern about the lack of a operational definition for the various goals. Employers said that they had difficulty in their own companies in specifying performance requirements, even when the jobs required relatively simple skills. They viewed the specifying of the more general behaviors needed for career success as a far more formidable task and questioned whether the authors of the CCEM goal set had forced themselves to face that challenge. Even so, the employers did not question the goals at the abstract level in which they appeared.

Employers felt that a 17-year-old who had accomplished the goals could certainly succeed in his first job after high school or could instead be successful in specialized vocational training or an apprenticeship.

They said that such a graduate would not only be ready for a liberal arts college education, but "if you accomplished this you would wipe out remedial education at the college level".

While employers thought it reasonable to establish the goals for every 17-year-old, they made it clear that they did not expect all of them to be accomplished. They said that it was realistic to expect a different goal profile for each high school graduate. As would be expected, employers did not think that the goals should be set even higher.

Union leaders were not comfortable with the grade 12 goals. They voiced many concerns. Among them were these: 1) a graduate so perfect would find himself a disappointed misfit in the imperfect society he would have to enter; 2) a graduate so well informed about his own potential might lose his ambition to excell; 3) the goals are so high that students may be discouraged from attempting them; 4) a successful CCEM graduate may find that a changing job market soon leaves him unequipped to find and to keep a job.

Yet the union leaders felt that a 17-year-old who had accomplished the goals could look forward to job success. One said, "If he could do everything here, he could be president of the company."

Union leaders had no doubt that a CCEM graduate would be ready either for specialized vocational training or an apprenticeship. Or he would be ready for a liberal arts college education.

Are the goals too much to expect of every student? Are they enough to expect? Union leaders said they were enough but not too much to strive for, despite their earlier reservations. But they noted in closing their belief that economic conditions can limit or defeat even a well-educated person. In the words of one, "We may make the child aware of his potential and capabilities but the conditions of the nation when he graduates may prevent him from reaching his potential."

Local school superintendents believed that the goals were highly desirable but impossible to achieve for all students. Still, they would not strive for less.

The successful graduate of a CCEM school would succeed in his first job, according to some superintendents; according to others, he might not succeed but his chances for success would be enhanced by his career education.

A graduate exhibiting the grade 12 profile could certainly enter specialized vocational training or an apprenticeship or a liberal arts college. Undoubtedly he could make better choices of a school or a job than the typical graduate of today's high school.

The CCEM goals are too much to expect for every high school graduate. Each student would achieve the goals to a different degree; the majority should be able to accomplish most of the goals through a well-designed instructional program.

Are the goals enough to expect? They certainly are enough to begin with said the superintendents, but of course the goals could be altered or new ones could be added as necessary. "These provide a framework and you can't do more than that. You need flexibility."

State teachers' association/union leaders concurred with other participants in some respects, but departed from them in others.

They agreed that a 17-year-old should accomplish the goals but their admiration was tempered by realism. Said one, "It would be wonderful if he could because I don't think I can do half of them myself."

Direct job entry immediately upon high school graduation would be possible for the CCEM student but only into jobs that do not require skills and would teach them to the beginning worker. That is, the association/union leaders did not see the CCEM graduate as having job entry skills.

The CCEM graduate would be ready for specialized vocational training or an apprenticeship, but hopefully he would have good guidance before he choose either, according to the association/union leaders.

Unlike any other group, these representatives found the CCEM grade 12 goals irrelevant to the academic or college-bound students but assumed that the brighter students would succeed in entering college regardless.

These representatives did agree with the other participants that the CCEM graduate can make better choices of a job or a school than his contemporaries in other high schools. Repeating their belief that the primary contribution of a CCEM education would be to make a student more aware of his circumstances (rather than to make him skillful at a job) they said a student's awareness that "he may have to change jobs several times during his life" is very desirable.

Like other participants, the association/union leaders found the grade 12 goals were not too much to hope for but were too much to expect. They said, "Some kids aren't going to make it."

QUESTION 9

Suppose a boy or girl dropped out of school at age 15 (the end of grade 10). Look at the grade 10 goals.

a) Is this is what he or she should be able to do?

b) Can the 15-year-old go on from there to a successful career--is he well started?

c) Are these goals too much to expect of every 15-year-old?

d) Are they enough to expect?

State legislators said their views about the goals for the prospective dropout were the same as they were for the prospective graduate: the goals were highly desirable but might not be achievable. If a 16-year-old dropout has had sound career education up to age 16 and has accomplished the goals scheduled for him, he will know enough to evaluate what he is able to do in the world of work and will be able to decide whether he should in fact drop out.

Legislators said that any dropout who exhibited the grade 10 goal profile in his own behavior would already be well started toward a successful career and presumably could go forward on his own.

Legislators echoed their earlier views by saying that while the goals were actually too much to expect of every 16-year-old, they should be set at the level called for in the CCEM document. Employers felt that a number of students would not have sufficient maturity to exhibit the desired behavior at age 16 but that even they would be far better prepared than their contemporaries thanks to having had ten years of career education.

Legislators declined to lift the goals for grade 10 any higher.

Local school board members felt that a 16-year-old who could meet the CCEM goals probably would not drop out of school. If he did, he probably could go on to a successful career on his own because of his good initial start.

School board members thought that the goals are indeed too much to expect of every 15-year-old yet they would not lower those goals. They called the goals "something to strive for" if not to accomplish. "Hopefully this is what the student would be able to do," said one board member, even though he did not expect his hopes to be realized for every student.

Employers found it hard to distinguish between the goals at grade 10 and at grade 12. The differences seemed negligible to them. Thus they found the grade 10 goals to be exceedingly high for prospective dropouts.

Employers said that the 16-year-old dropout certainly would be well started on his career and psychologically ready to move ahead on his own if he had accomplished the grade 10 goal profile. However, they said that he might need a considerable amount of on-the-job training before he would arrive at the same level as a high school graduate who had completed the entire CCEM program.

In keeping with earlier comments by other representatives, employers felt that the CCEM goals were too much to expect but not too much to hope for in the case of prospective grade 10 dropouts.

Union leaders arrived separately at the same conclusion as local school board members: any 16-year-old who reaches the goals envisioned for him in the CCEM program would not drop out. But if he did, he would be well started toward a successful career.

Union leaders felt that the grade 10 goals are too much to expect of every 15-year-old, especially those who drop out precisely because they cannot meet school expectations. Along with other groups, they were willing to set these goals but not willing to expect them to be achieved for every grade 10 student.

Local school superintendents thought it unlikely that any dropout would have achieved the goal profile projected for grade 10. They said, "If he's dropping out, he's probably not at that level." This observation underlined that made by other groups: a student who exhibits the CCEM grade 10 goals in his behavior will be too mature and too knowledgeable to drop out. But superintendents agreed that the projected goals would be highly desirable for any 10th grader leaving school.

Superintendents felt that any 10th grader achieving the CCEM goals set for him would be well started toward a successful career.

Superintendents thought that the goals were not too much to expect from most 15-year-olds, but they noted that not all students could accomplish them. Repeating a sentiment heard throughout the conference, they said, "Expectations are important; you get what you expect."

For some students, the superintendents said, even more could be expected by grade 10. This view also reflected that held by almost all participants: differences among schools and individuals are so great that it would be totally unrealistic to expect any given set of goals to be equally achieved by all.

State teachers' association/union leaders said that the grade 10 goal profile was a sensible target, although admittedly high. "Some high school seniors graduate with less," they said.

They were uncertain that a 15-year-old dropout would be well started on his career, even if he had accomplished the goals set for him by CCEM. Some said, "If he can get the first job, he's well started." Others said, "He is crippled without a high school diploma, even if he achieves the grade 10 goals."

Are the goals too much to expect? They are a great deal to expect, the association/union leaders pointed out, and not all students will accomplish them.

Are they enough to expect? "They are not enough to hope for, but enough to expect," they said. Repeating the view often-expressed at the conference that goals are useful as a target even if one does not expect to hit the bull's-eye.

CHALLENGES to the Developmental Program Goals

The participants were told that major challenges had been leveled against the CCEM Developmental Program Goals and against the program they envisioned. These challenges have come from various sources inside and outside the scholarly community and inside and outside the Federal government. Participants were asked to listen to a statement of five serious challenges to the CCEM concept and goals and to give their views. The challenges are expressed below as questions.

QUESTION 10

> It has been claimed that the CCEM goals overemphasized economic man--man the worker. Some have said that the goals pay too little attention to other careers in life: being a family member, being a citizen, being a leisure man, and so on. The charge is that the designers of CCEM have placed a narrow construction on the term "career"--that "career" ought to mean "life" and that career education ought to mean preparation for a man's multiple careers as a family person, as a citizen, as an ethical man, as a physically and mentally healthy being, and so on.
>
> Do the CCEM goals emphasize man the worker at the expense of other valuable things students ought to be taught?

State legislators rejected the charge. "We are not going to take away existing opportunities to emphasize the total person. We are going to add an emphasis on work as a career," said one legislator. "The goals include economic awareness, self awareness, family concerns, and so on. I don't think work is overplayed," said another legislator. "It's doing what it's designed for," said a third.

Local school board members were in complete agreement. One said, "There are other goals for other programs." Another said, "Career education is only one part of a total picture, even though it is a strand that runs through every dicipline." Other expressions: "We like the economic emphasis"; "We do not think it overemphasizes work"; "Kids have been encouraged to have fun too long--now this is something practical".

Employers were equally comfortable with the CCEM goals. Here are some quotations:

> "This is not the only set of goals; other things would be covered by other sets of goals."
>
> "This is not the total program."

> "It simply redresses the balance."
>
> "The school is not the only educator."
>
> "Not all life areas can be tackled by the schools; work can."

Union leaders disagreed. While they did not object to the awareness aspects of the program, they repeated their objection to the job skill training aspects of the goals. They also repeated their objection to the narrowing of options that they felt the CCEM program entails. Here are some quotations:

> "Education is power; to limit career education to these goals is to limit a student's power."
>
> "Man doesn't live by bread alone, and there's too much emphasis on dough!"

Local school superintendents were quite comfortable with the CCEM goals as they stand. They noted that much would depend on how career concepts are infused into the total curriculum. Properly done, they felt that the CCEM goals would supply a significant missing ingredient. Here are some quotations:

> "It emphasizes man the worker, yes, but it does not sacrifice other values."
>
> "There are other parts of the curriculum which would pick up the humanistic values."
>
> "There are other institutions which have a responsibility for bringing out the other values in the total development of a man. Education for work is a major purpose of the schools; schools are responsible for contributing to a man's ethical development and leisure living, but that is not a main goal."

State teachers' association/union leaders tended to agree with the views of union leaders, reported above. That is, they felt that the CCEM goals do overemphasize man the worker at the expense of other values. But their concern was conditional: "If emphasis is on awareness, that is okay; but if it's on actual job training, that's not." Again, "The program is okay as long as it doesn't go into heavy skill training."

These expressions reinforce the repeated views of the association/union leaders during the conference that education for self, social, and job awareness was acceptable whereas education for actual job skills was not.

QUESTION 11

> The CCEM goals have been charged with threatening to further crowd the already-crowded curriculum, possibly dislocating other valuable content. To achieve the CCEM goals, something else would have to be abandoned. Introducing CCEM will trigger the classic teacher's question: "I would be glad to put it in; what would you like me to throw out?"
>
> Can CCEM goals be accomplished through infusing the content into existing subjects so that they enrich those subjects yet take up no space, leaving the teacher's day no longer than before?

State legislators rejected the challenge to CCEM. They said that the goals could indeed be added without dislocating anything else. Some quotations:

> "It can be done."
>
> "You don't have to eliminate the other diciplines or even to cheat them to get this done."
>
> "You can arrange this with ease; you don't have to give up anything."

Local school board members arrived independently at the identical conclusion. The CCEM program need not crowd out anything else. On the contrary, they saw the program as offering a valuable new structural framework for the collection of existing subjects. Some quotations:

> "We need a way to restructure and reorganize our programs."
>
> "The secret of the whole program is infusing it into other subjects."
>
> "If the program were set up as separate courses, many students would miss the benefits."

Employers offered two views, neither one in opposition to the CCEM goals.

The first view was that CCEM would drive out less valuable content from the present curriculum:

> "Some things would have to go that ought to go--and that would be very healthy."

> "If you don't revise the existing curriculum, CCEM isn't going to do any good."
>
> "We should re-examine the whole curriculum for its relevance to the world that kids are going out into."

The second view was that CCEM would enrich but not dislocate existing content:

> "If you eliminate something, you have missed the basic idea."

Most employers held the first view. If they had reached a consensus, it would perhaps have been this: CCEM is probably more valuable than anything it eliminates.

Union leaders said that "Something will have to give unless we infuse the career aspect of the program into other subject areas. If CCEM tries to stand alone, it will crowd out something else."

Local school superintendents did not see CCEM as competing with other subjects; instead, they saw it as offering an organizing structure for them. They said, "It will not crowd out anything. We are going at things aimlessly in education today and this provides us with some framework, some structure with which we can begin to tie together some loose ends--without crowding out anything."

The idea of infusing career concepts into other subjects coupled with the idea of relating all subjects to career concerns drew strong endorsement from the superintendents, as it did from most other participants at the conference.

State teachers' association/union leaders said that if career goals were to be given the central position advocated by CCEM, they would change the existing system, pushing out some current content. "If you infuse this program to the degree it is intended to be, something would have to go."

This view was consonant with the earlier expressions of concern by the association/union leaders with the heavy weight and inappropriateness of CCEM goals other than those dealing with self, social, and career awareness. Although they did not say so explicitly at this point in the discussion, one could expect the association/union leaders to be less fearful about the CCEM awareness elements dislocating existing curriculum than about the job competency elements.

QUESTION 12

> The CCEM goals have been challenged as envisioning a program that may be easy to introduce into the elementary schools but will be very difficult to introduce into the high school. Some people feel that teachers in grades K-3, for example, already work toward goals similar to those called for in CCEM for the early grades--goals such as self awareness and educational awareness. But they point out that if the program attempts to infuse career concerns into the high school academic subjects that have been set apart from career training for decades, classroom teachers will balk. They will not see the introduction of career concepts as feasible or even necessary and will fear the displacement of content from the academic disciplines. Some other persons predict that even high school vocational education teachers may resist the career education movement because it challenges a long tradition of separate vocational training.
>
> Can CCEM goals be introduced into the high school?

State legislators saw some difficulties in introducing the goals into high schools but were more impressed with the potential gains than with the potential problems. Some felt that students would demand a continuation of career education if they had had it during their elementary years. Legislators argued that it would not make sense to terminate the program at the elementary or junior high grades since students are just "getting to the point where they are approaching employment or continuing education". There was an undertone of determination, as indicated by such comments as:

> "It should be woven into high school."
>
> "It may be difficult to get the changes but they are desirable and we won't let that slow it down."
>
> "Where there is funding, change usually takes place."

Local school board members saw no critical problem at the high school level. They acknowledged that the program would be a challenge to the teachers but did not envision serious resistance from them. In any case, the board members felt that even partial success in introducing CCEM goals would improve today's high schools.

Employers said that while the difficulties might be greater in high school, that did not mean the program was less important at those grades. They felt that older teachers using traditional methods might exhibit some resistance at any grade level.

Employers emphasized that getting a consensus within the local community was the key to installing the program.

Union leaders thought the introduction of CCEM goals would be no harder in high school than in elementary school. They pointed to the need for strong management and faculty re-training:

> "Any change will bring about a certain amount of dissent, but the overriding factor is that if superintendents and school boards have got control over their work force there can be change."
>
> "Effective career teaching is going to require some first hand knowledge which we can't expect classroom teachers to have now. So there will be an exceptional amount of re-training in the existing work force needed."

Local school superintendents expected the program to be more effective in the elementary grades but said they would not stop there. They pointed out that elementary teachers are more concerned about child development and more interested in teaching methods, less subject-matter oriented than high school teachers. They also said that elementary school schedules are more flexible, making change easier.

State teachers' association/union leaders repeated the view of some other participants that resistance would be more traceable to teacher age than to grade level. More important, they said that adopting the CCEM goals would require a change in philosophy for teachers at all grade levels. Such a change should begin during the initial years of teacher training in colleges so as to reduce the amount of re-training required later on, they pointed out.

QUESTION 13

> The CCEM goals seem to require that high school students work at real jobs, free or for pay, during the school day at least in grades 10-12. Some observers believe that it would be logical to grant course credit toward graduation for such work on the assumption that it is as educative as being in regular classes. Other observers think that asking course credit for daytime work would create strong resistance to the CCEM program.
>
> Should students in grades 10-12 be given high school graduation credit for work during the school day?

State legislators express unanimous approval of giving such credit. Some quotations:

> "He can get motivated by it."
>
> "A work experience is a basic part of the educational process."
>
> "It's much more educative than having him sit in an art class."

Local school board members disagreed. They said that a student should not get pay and high school course credit at the same time. Students who did not work for pay could be given course credit; students who worked for pay should get none. It was clear that the board members regarded pay plus course credit as a form of unnecessary double payment.

Employers disagreed with the local school board members and echoed the sentiments of the state legislators:

> "Yes--it would be the best thing they could do."
>
> "It would be their best experience during the year."

Union leaders said that work should be given credit, yet they did not see work as equivalent to classroom study. They suggested that schools might give credit for work but simultaneously raise the number of credits required for graduation to prevent the substitution of work credits for academic credits.

Union leaders said that there should be clearer standards for learning either at work or at school. As they expressed the matter, "Performance standards should be established and performance standards should be met and it doesn't matter where a students learns as long as he learns."

Local school superintendents favored giving graduation credit for daytime work in grades 10-12. They said, "City board of education are moving toward credit for many worthwhile job activities if performance objectives are set and met." Their concern that work be educative in order to be creditable and that setting job performance standards could help assure learning were similar to the feeling expressed by some other representatives.

State teachers' association/union leaders favored the granting of high school graduation credit for work but said a ceiling of 20 percent to 30 percent of the school day should be placed over such work. Like other representatives, they recognized the distinctive values of classroom study and work for pay. They said, "There's a difference between classroom academic work and a job-oriented work and one should not be replacing the other or displacing the other."

Local school board members carried their minority position (opposing school credit for paid work) into a large-group discussion with other representatives. The debate served to consolidate and stiffen the opinions of the other representatives in favor of school credit for work, even if the student worked for pay. The school board members argued that if students work for pay, they do what an employer wants, whereas if they work as part of a training program under school sponsorship they are having an educational experience. Other representatives would not be persuaded. One said, "Most of the people in this room were pretty well paid while they learned most of what they know. Thousands upon thousands of veterans have got on-the-job training and were given credit while they were were getting paid for it."

QUESTION 14

> The CCEM goals seem to demand a level of community participation in education that is unprecedented. Some observers have endorsed the principle but have insisted that it is not possible to achieve the degree of community involvement required.
>
> They have said that employers will not open up their places of business to the extent necessary. They will accept a few field trips but will not endure students swarming through the place of employment, interrupting workers, talking to them, looking over their shoulders, getting in the way of the machinery, and running up insurance risks. They have said that unions will see the prospect of job dilution if high school students begin doing real work, either free or for pay, reducing job chances for union members and possibly lowering pay rates. They have said that while an occasional worker will come to school to talk about his trade or his profession, large numbers of workers will not come during the school day.
>
> Will the community turn itself into a schoolhouse?

State legislators said that the whole community would not become a schoolhouse but that the goals of CCEM could be accomplished in other ways--perhaps through parent education programs, the use of television or other media, and the simulation of work situations at schools. But they nevertheless saw the possibility for higher-than-usual community involvement. They noted that some companies employ older high school and college students, train them, and pay them while they are learning.

Local school board members felt that the values of greater community involvement were so great that no effort should be spared to get it. They thought that local school boards themselves were in a good position to take the lead in raising community participation. While the kind of massive participation envisioned in the CCEM goals might not be fully accomplished, any increase in community involvement would be beneficial and the school should go as far as possible, they said.

Employers were quite optimistic about the possibilities. They said that the problem of massive participation by employers was not insoluable, that company management was becoming more aware of the need and the opportunity. All of the employers described shifting company attitudes. Some quotations:

> "Schools have not encouraged companies to do this and the companies have stood off to one side, but that is changing."
>
> "Industry used to consider this difficult but they are beginning to change their attitudes and to realize that they can take an active part in the educational system. They are starting to understand that if they are going to do that, they are going to have to change."
>
> "Business is going to have to staff up just to handle the sheer management and coordination called for by career education programs."
>
> "Those students will be our customers some day."

Union leaders drew a mixed picture. They said the chance for student observation of and participation in work depended upon many factors: the type of industry (safety factors will limit student participation in some), the type of trade, the level of job, the nature of the local community (some communities offer only a limited variety of jobs), legal restrictions, economic conditions in the immediate locality, and so on. In principle, however, union leaders supported the concept of high community involvement.

Local school superintendents were optimistic about the possibilities. They said that the problems could be resolved. The schools themselves would have to reach out to the community and the career education program would have to be carefully planned and coordinated by the schools. They raised no question about the desirability of higher community involvement.

State teachers' association/union leaders were less optimistic than most other representatives. They said that higher involvement would work with careful planning by the schools. They pointed out that strong government backing would be needed in order to adjust legislative and administrative restrictions that now govern conditions at places of work and have now set a framework of permissible time and space around school instruction.

APPENDIX

Papers presented at

CONFERENCE 1

Nine Scholars Assess the Quality of the Developmental Program Goals as an Intellectual Product

Airlie House, Virginia
March 13-14, 1973

Critical Vantage Point	Scholar	Page
Logical Structure	EGON G. GUBA, Indiana University	1
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The papers in the Appendix are published as received at the conference, without modification except for minor technical editing.

A Review of Developmental Program Goals For The Comprehensive Career Education Model

CRITICAL VANTAGE POINT: LOGICAL STRUCTURE

Egon G. Guba

It is my considered judgment, reached after a careful examination of the document, Developmental Program Goals: Comprehensive Career Education Model, that the logical structure underlying the model and its associated matrix is sufficiently flawed to make it imprudent to base any further development on it until it is comprehensively recast.

I have reached this judgment somewhat reluctantly. My knowledge of the scope, nature, and accomplishments of the effort which has already been expended is severely limited, as is my own ability as a logical analyst. Further, I had nothing to go on other than the document itself. Yet, I must presume that it is this document alone that will guide most potential adopters and users of the Career Education Model; unless the model and its associated matrix are acceptable in this admittedly truncated form, they must be rejected until they can be improved and refined.

My inspection leads me to conclude that there are at least six defects that can be characterized primarily as logical in nature, although I suspect that many of these will overlap with inadequacies that will be noted by my colleagues as they examine the document from other vantage points. These six are:

1. Failure to elucidate definitively the purpose or goals of the model and matrix.
2. Confusion on basic theoretical orientations and operational terms.
3. Questionable appropriateness of the eight elements underlying the matrix, on the grounds of:
    a. Ambiguity surrounding their source.
    b. Likely invalidity of the claim that they constitute a necessary and sufficient set.
    c. Existence of contingent relationships among them that are not taken account of.

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d. Lack of explicated relationship to the developmental stages that are postulated as basic to the Career Education Model.

4. Lack of an adequate base for judging inclusion-exclusion of substantive elements of the matrix.

5. Lack of a sequencing-integrating mechanism that generates the grade level steps projected in the matrix.

6. Failure to relate the matrix or model to the criteria that the developers themselves propose.

A fuller exposition of each of these defects is given below.

1. Failure to elucidate definitively the purposes or goals of the model and matrix. Efforts to make a logical analysis of a model or theory must begin with consideration of the goals or purposes which that model or theory is intended to serve. Examination of the statements made by the developers of the Career Education Model and its associated matrix leaves me undecided about just what the purposes or goals are in this case, and therefore unsure as to how to judge the model itself. Statements relating to purposes are explicitly made in perhaps a dozen places, although I believe that these several references can be aggregated into the following five:

a. The purpose of the Comprehensive Career Education Model (CCEM) is to fit the student for career pursuit, including selecting, preparing, and pursuing a career plan, understanding career roles, and achieving placement in a job or in higher education. (See for example, pp. vii, 2, and 17.)

b. The purpose of the CCEM is to fit the student for the transition from school to society, in terms both of understandings and experiences.(See for example, p.2.)

c. The purpose of the CCEM is to devise a transportable career education model that provides an operational definition of career education. (See for example p.3.)

d. The purpose of the CCEM is to infuse career education into all levels and aspects of the school's curriculum, to link the goals of career education with the curriculum structure of the school, and to articulate the effort among LEAs to include career education in their programs. (See for example, pp. 1 and 3)

e. The purpose of the CCEM is to select, develop, and articulate curriculum and guidance units necessary for the delivery of career education. (See for example pp. 2 and 3.)

It is, of course, not inappropriate for a program to have multiple goals. It is not the fact that there is more than one goal that I find disturbing, but rather that the five goals listed above are so all-embracing that they do not provide explicit guidance either to the developers or to any potential user of the CCEM. These goals require that the project staff engage in a spectrum of conceptualization, development, diffusion, adoption, and training activity so broad that it is questionable indeed whether any agency could hope to accomplish it. Almost any proposed activity could find its place in this compendium of purposes, and almost any potential user could fit his needs into it somehow. The listing is simply not sufficiently definitive to be either heuristic or guiding.

2. Confusion on basic theoretical orientations and operational terms. It is apparent that model (and matrix) development is a conceptual task; one which necessarily depends upon careful definition and articulation of basic terms. As I sought to understand the CCEM, however, I found myself continually stumbling over undefined terms and inadequate theoretical statements. For example, the terms element, theme, goal, strand, performance objective and mission statement are variously and continuously used, but I failed to find an explicit definition for any of them (although the glossary [p. 173] does briefly describe four of these terms). Nor is the statement of the career education theory, purportedly the heart of the document, any clearer. We are told (p. 10) not to expect too much, since "the entire concept of career education is so new that a definitive theory is still in the process of emerging." (emphasis mine). But can its emergent state justify these confusing paragraphs (p. 11)?

> Career education theory consists essentially of merging career and educational development theory. The career education concept is a forceful assertion that education be considered a part of the overall career development process.
>
> During the last decade educational development has made significant advances in the area of cognitive growth. Until now these advances have not yet been fully combined with

> career development theory under the rubric of career education. Cognitive, affective, and psychomotor development theories, along with related theories of social and human development, become the educational ingredients for the concept of career education.

I found it impossible on the basis of statements such as these to articulate for myself what the underlying theoretical foundations are for the CCEM or its associated matrix. I doubt whether the typical reader will feel very much more enlightened.

3. Questionable appropriateness of the eight elements underlying the matrix. While I found myself confused on purposes and goals, theories and terms, as noted above, I surely was not ready to give up on the CCEM simply for those reasons. It seemed to me that what was really at issue was the matrix itself; I was inclined not to quibble about generalities provided that the matrix appeared to be a really useful operational document. I therefore turned to an examination of its basic elements with a great deal of interest and anticipation, since it seemed to me that the utility of the matrix ultimately hinged entirely on their adequacy. But again I was disappointed, for there seemed to be to be four gross deficiencies:

a. Ambiguity surrounding the source of the elements. It is asserted (p. 1) that the rationale for the matrix is "based on authoritatively derived concepts" and that a "theoretical base is emerging from an integration of authoritative concepts regarding self, culture, and career." There is no self-evident reason, nor is one stated, why the concepts of self, culture, and career are considered relevant. Why not also society, for example? There is no indication how the staff accomplished the "examination and integration of authoritative theories in the fields of human growth and development, social development, guidance, career development, curriculum development, and taxonomies of educational objectives" (p. 12) which led to the emergence of the eight elements. A little experience with this kind of integrative activity makes me doubt very seriously whether an integration covering so many arenas is possible. In all events, I find myself intuitively suspicious of any formulation asserted to be based on authoritative sources, without evidence. Authority and dogma are easily interchanged.

b. Likely invalidity of the claim that the elements constitute a necessary and sufficient set. The project staff asserts the importance of requiring the categories of a conceptual matrix to constitute a necessary and sufficient set, a point with which I would most certainly agree. The staff claims to have tested the matrix on this criterion by "developing a sample set of goals and performance objective for each grade level" that was subsequently "reviewed by seven consultants representing various education specialties" who concluded that "the elements were both necessary and sufficient for career education." (p. 13). But several points can be made in rebuttal to this contention:

1) The sample set used with the consultants was preliminary and constructed entirely by the staff. It included performance objectives as well as goals. The performance objectives were later eliminated from the matrix: they are said now to be "part of the curriculum units" (p. 15). It is at least questionable whether the consultants would reach the same decision if they were considering only goal statements, particularly if the goal statements were to be sampled from among the actual ones as they currently appear in the published matrix, constructed not only by the staff but by the personnel from the six participating LEAs as well.

2) The project staff itself suggests that there are still some open questions regarding the elements. For example, they indicate (pp. 15-16) that "the importance of social awareness as a distinctive concept within the matrix was emphasized in 'Report on Matrix Development'. . . . The Delphi resulted in two themes within the attitudes and appreciations element. It was suggested that the matrix and the element would be strengthened by the use of the more inclusive term social awareness. Continued refinement of the matrix in this regard and in other ways is contingent upon future stages of project development " (emphasis mine). I would suggest that if the staff proposes to continue refining, possibly adding new elements or restating existing ones, the claim that the elements constitute a necessary and sufficient set is premature and unwarranted. And of course if the elements do not constitute a necessary and sufficient set, the utility of the matrix is very much in question.

3) There are many instances of overlap from element to element that render dubious the claim that all elements are in fact necessary. Let me give some examples drawn from the paragraphs describing the elements as found on pp. 6 to 9.

  a) Self-Awareness with Educational Awareness; the latter is said to include "knowledge of himself as a participant in education and training," a concept clearly also included in the former. (p. 6.)

b) Self-Awareness with Economic Awareness; the latter is said to "make it possible for the child to . . .solve personal problems " (p. 8, italics mine).

c) Self-Awareness with Attitudes and Appreciations; the latter is said (p. 9) to lead to the development of an internalized value system, which is also said to be a product of the former (p. 6).

d) Educational Awareness with Career Awareness; the former is said to lead to an understanding of the training needs of persons engaged in specific occupations(p. 6) which is of course also specified as a major outcome of the latter (p. 8).

e) Career Awareness with Decision Making; the former is said to lead to the "individual's selection of an appropriate role or roles within the world of work" (p. 8), while the latter is said to cause the student to "reach a decision which represents a careers direction-setting by grade ten, or early enough to provide for the development of entry-level skill in a career plan prior to school exit" (p. 8).

f) Decision Making with Attitudes and Appreciations; the former is said to lead a student to "accept the responsibility for the outcomes of his decisions" (p. 8), an attitude that evidently should be classed in the latter element.

g) Beginning Competency with Employability Skills; employability skills described (p. 9) as including "group participation, other social-relation awarenesses and skills, and skills relating to worker adjustment" could as easily have been included under the so-called "process applications" discussed under the former heading (p. 9).

h) Employability Skills with Attitudes and Appreciations; surely the skills "related to worker adjustment" described in the former category (p. 9) could as easily have been among the attitudes described in the latter category as leading to "active and satisfying participation as a productive citizen" (p. 9).

Obviously none of the conflicts or overlaps cited above is irreconcilable, but the present state of definition of the elements leaves so much room for question and misinterpretation that the assertion that the elements constitute a necessary and sufficient set is simply indefensible.

c. Existence of contingent relationships among the elements not taken account of. Not only are there definitional overlaps and conflicts among the elements as noted above, but the elements are in fact dependent on one another in temporal or logical terms, a fact which has serious consequences for the matrix. In the exposition on pp. 6 to 9, in which the elements are defined, some of these contingencies are very clear.

So, for example, certain pre-existing conditions or behaviors are postulated for each element, but these pre-existing conditions or behaviors are also often given as the end-products of other elements. Thus, some knowledge of the relation of education/training to life occupation roles is a precondition of Career Awareness (p. 8) but is also given as a product of Educational Awareness (p. 6). Knowledge of a career choice is an evident precondition of Beginning Competency (p. 9) but, just as evidently, such knowledge is the result of Career Awareness (p. 8) and/or Decision Making (p. 8). Some knowledge of the decision-making process seems to be a precursor to a career decision; the former evolves from the Decision Making element (p. 8) while the latter evolves from the Career Awareness element (p. 8). However, as can be clearly seen from the matrix, these contingencies are ignored in both theme and goal projections, which are written as though all elements were entirely independent and could be pursued without cross reference from K through 12.

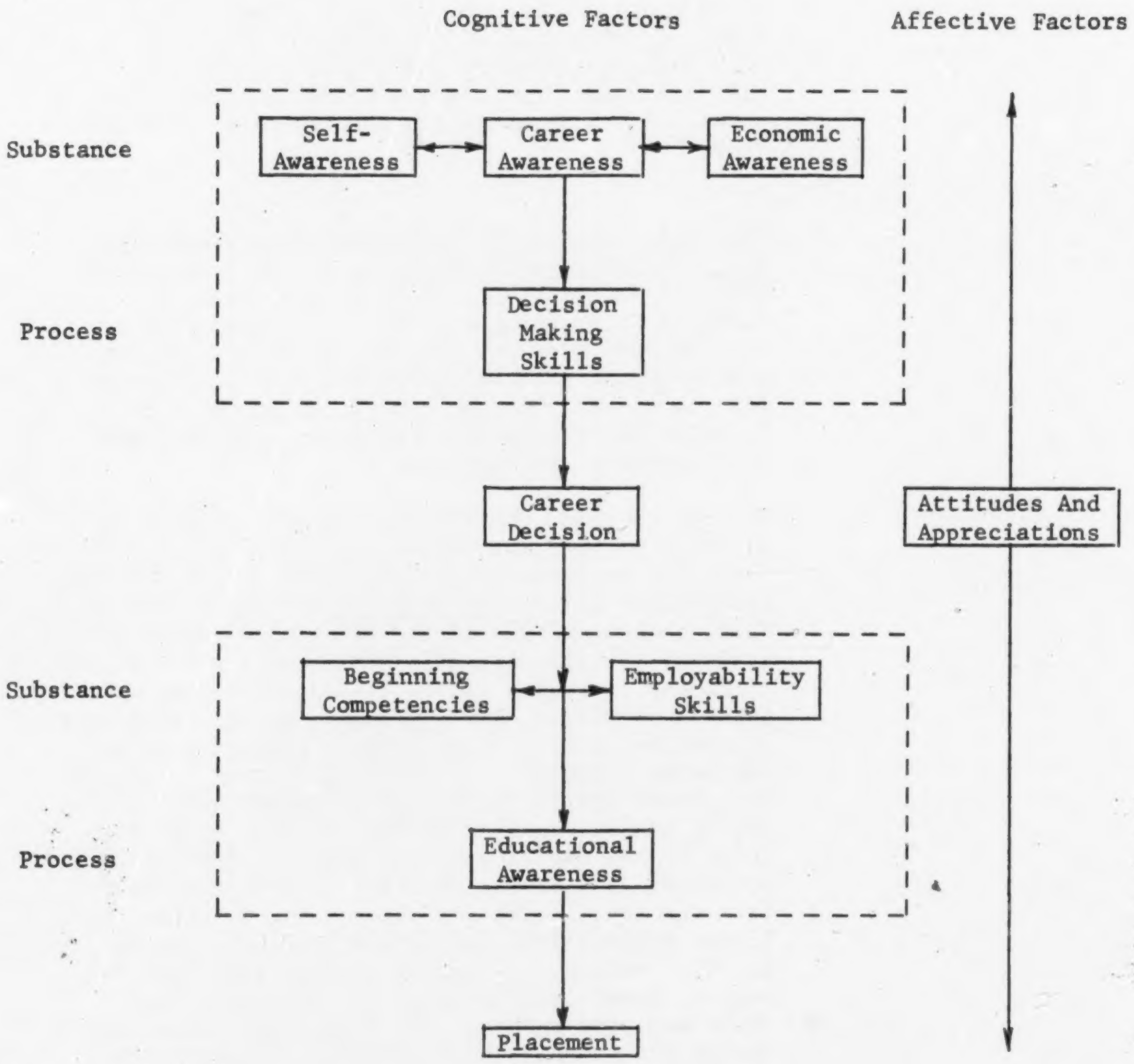
Cognitive Factors
Affective Factors
Substance
Self-Awareness
Career Awareness
Economic Awareness
Process
Decision Making Skills
Career Decision
Attitudes And Appreciations
Substance
Beginning Competencies
Employability Skills
Process
Educational Awareness
Placement

FIGURE 1: Illustration of Contingencies Among Elements

I was surprised indeed that the various relational qualities of the elements were not taken account of, as for example in Figure 1, which I developed in order to illustrate my point more quickly. This figure takes account of:

1) The fact that some elements necessarily precede others (at least in part) in time, e.g., that Career Awareness precedes Career Decision, which in turn precedes Beginning Competencies, which in turn precedes Placement, etc.

2) The fact that some of the elements are primarily substantive in nature (e.g., Career Awareness or Beginning Competencies) while others are relatively more process oriented (e.g., Decision Making or Educational Awareness).

3) The fact that some elements (or aspects of elements) are primarily end points (e.g., Career Decision or Placement) while others are means to those ends.

4) The fact that only one element, i.e., Attitudes and Appreciations, can properly be thought of as extending throughout the K-12 period.

I have no special brief for Figure 1, of course, nor do I make any claim for its validity, per se. But if the point which it illustrates has validity, i.e., that there are a variety of contingent relationships among the elements, then the use of the elements in the matrix as though they were independent and could each be thought of as running throughout the K-12 period is clearly in error.

d. Lack of explicated relationship to the developmental stages that are postulated as basic to the Career Education Model. There are three developmental stages postulated in the document as basic to the CCEM (these are shown most explicitly in Figure 1, p. 5): career awareness, career exploration, and career preparation. Inspection shows, first, that the stages are simply presented, without a rationale, and without any preparation of the reader for their existence. No explicit effort is made to relate them to the elements, although it is asserted (p. 4) that "by means of the matrix, goal statements have been progressively sequenced starting with career awareness through career exploration to career preparation." Second, we see that the three stages do not enter explicitly into the matrix itself, as presented in detail in later portions of the document; the reader is left to guess at the degree to which and the method by which these stages are used to generate the goal statements. Third, we may note the confusing overlap between the stage designations and the element designations; thus the term career awareness is used to designate both the first stage and the third element (a point explicitly treated in the Glossary, p. 173). Finally we may note the distinct disjunction between the way the stages are presented in Figure 1 (p. 5) and the way that the elements are treated in the matrix. One would expect career awareness goals (first developmental stage) to include the awareness elements, i.e., Self-Awareness, Educational Awareness, etc., for example. But this cannot be so since these awareness elements extend through all 13 grades, not just the first six, as would be assumed from a study of Figure 1. Similar remarks could be made about the career exploration goals and the elements of Decision Making and Beginning Competency and about the career preparation goals and Employability Skills.

4. Lack of an adequate base for judging inclusion-exclusion of substantive elements of the matrix. I find from my examination of the document no references, implicit or explicit, to inclusion-exclusion criteria which might be used to judge the content relevance of any proposed theme or goal statement in the matrix. The reader is led to believe (p. 10) that these criteria will become evident; it is asserted that "the structure of the matrix enables relevant information to be identified, classified, and organized." An appeal is made (p. 10) to the writings of Bruner, Heath, Phenix, and Rosenbloom to support the idea that the structural components of a curriculum can be derived from the structural components underlying its basic discipline(s), giving the reader hope that some appeal will be made to discipline components in support of whatever content is introduced into the matrix. But no such logic is in evidence later. I found that I was overwhelmed with content inclusions that had no apparent justification. So, for example, in reading the so-called mission statements (one paragraph summaries of the themes and goals for each grade level) relating only to the element Self-Awareness (pp. 19-21), I find all of these terms: interests, family roles, influence of people, cultural differences, body-space

relationships, personal physical characteristics, personal roles, rights and responsibilities, relation to others, selected activity, tasks, tools, self-uniqueness, achievements, role complementarity, group membership, values, personal characteristics, health, personal aptitudes, sensitivity to people, occupational goals, cognitive capabilities, psychomotor capabilities, affective capabilities, role expectations, conflict, tentative career choice, priorities, goals, skills, career information, physical development, daily performance, personal relevance, personal significance, self-awareness, reaffirmation, and alternatives. There seems to be no rhyme or reason to this set; apparently whatever terms were thought by anyone to be relevant were included. One gets the feeling not of a well-thought through, orderly list but of a serendipitous grouping of terms drawn from a bewildering variety of behavioral sciences. Since there is no basis for inclusion there can be no reason for exclusion.

5. Lack of a sequencing-integrating mechanism that generates the grade-level steps projected in the matrix. Just as I found no basis for determining content, I likewise found no basis for determining grade level sequencing and integration. The matrix format gives the impression that careful consideration was given within each element to principles by which one moved from the goals specified at any given grade level to the goals specified at the next succeeding grade level; somehow one expects that there exists some rationale to account for the successive tasks described. But again I was disappointed.

The task is not as difficult as it sounds. There are some implicit sequencing principles in the matrix, intuitively placed there by the terms that developed the goal statements. For example, a one hour exercise produced the following principles:

a. Exploration (things, ideas, concepts, values); initial stages of most elements began with exploration, and exploration was included again when new and more difficult factors were introduced.

b. Recognition (awareness, identification); in later stages more complex factors were recognized as extensions, generalizations, etc., of earlier elements.

c. Differentiation (selection, clarification, classification); as more and more factors are introduced the student is expected to learn increasingly complex differentiations.

d. Relation (patterning); at later grade levels the student is expected to build on a priori factors, to see preconditions, and to see complementarity.

e. Time perspective; at later grade levels the student is expected to deal with long-range considerations rather than immediate ones, and to understand continuity and variability.

f. Refinement; the student is expected to be able to modify, specialize, plan, and resolve conflicts.

g. Analysis; the student is expected to be able to determine component parts, see their relationships, etc.

h. Evaluation; the student is expected to explicate criteria of worth and to develop skills in their application.

i. Integration; the student is expected to be able to synthesize new wholes.

j. Application; the student is expected to apply what he has learned in simulations, projects, real-life field experiences, et cetera.

Again I have no brief for this particular set of terms, but the fact that I am able to devise it illustrates my point that such a set can be developed and that it would have evident utility in sequencing the matrix statements. I can imagine a master sequencing chart of the sort that I illustrate in Figure 2, which would be constantly referenced as goal statements are developed. Given such a master chart, one would also be motivated to deal with such questions as these:

a. What is the relationship of the way that themes are sequenced to the statement of the three developmental levels, i.e., K-6, career awareness; 7-9, career exploration; and 10-12, career preparation?

b. What is the relationship of these principles to developmental theory? Are the principles well grounded in the relevant research and literature?

c. How can one tell what expectation is reasonable with regard to each of these factors at any given time? For example, what increase can one expect in the ability to recognize from grade level to grade level?

d. If the order of the factors given above represents some developmental order, where does a cycle appropriately start for a given element, or a substantive aspect of an element?

6. Failure to relate the model or matrix to the criteria which the developers themselves propose. The developers of the CCEM and its associated matrix themselves propose directly or by implication a number of overall criteria for judging their adequacy. These criteria are probably best expressed in the material appearing on p. 3, where at least

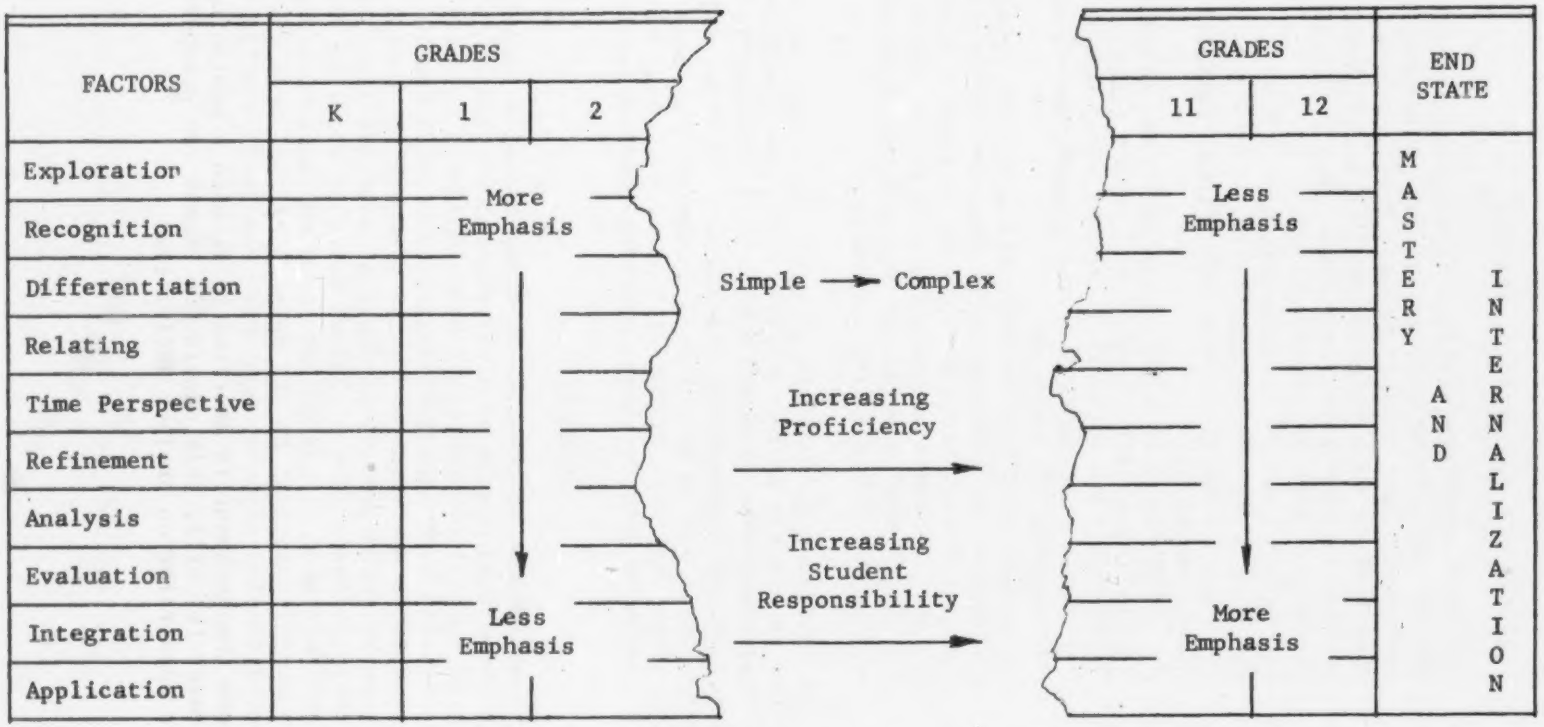
FACTORS
GRADES
K
1
2
Exploration
Recognition
Differentiation
Relating
Time Perspective
Refinement
Analysis
Evaluation
Integration
Application
More Emphasis
Less Emphasis
Simple → Complex
Increasing Proficiency
Increasing Student Responsibility
GRADES
11
12
END STATE
Less Emphasis
More Emphasis
MASTERY
AND
INTERNALIZATION

FIGURE 2: Illustration of Sequencing-Integration Chart

the following criteria are mentioned or implied:

a. The matrix must be based on developmental theory.
b. The matrix must be relevant to real-life situations.
c. The matrix must be sufficiently detailed to permit the construction of a career education curriculum.
d. The matrix must cover each grade level.
e. The matrix must be comprehensive.
f. The matrix must be "soundly based."
g. The matrix must be transportable.
h. The matrix must provide an operational definition of career education.
i. The matrix must link the goals of career education to the curriculum structure of the school (LEA).
j. The matrix must articulate efforts among LEAs.
k. The matrix must facilitate the integration of the CCEM with current LEA programs.
l. The matrix must provide criteria for identifying LEA curriculum and guidance units that are appropriate to it.
m. The matrix must provide criteria to guide a national search for career education instructional units.
n. The matrix must provide for the continuous development of students (progressive sequencing).

Except for criterion d, which is patently satisfied, it is impossible to judge whether or not the matrix measures up to the specifications. There are numerous assertions that it does, but no real evidence is cited, nor are procedures described or proposed for testing it. In view of the effort already invested and still to be invested in operationalizing the matrix, it seems unfortunate that more attention has not been paid to assessing the standing of the work to date on these important dimensions.

Summary

It was my assignment to critique the Comprehensive Career Education Model and its associated matrix of developmental program goals from the point of view of logical structure. I have indicated a number of defects in that structure and have made some suggestions about how these defects might be eliminated or ameliorated. While I regard the overall developmental effort as an exceptional beginning, it does not seem to me to have been sufficiently refined, from a logical point of view, to warrant its application and diffusion to the extent to which those have already taken place. I respectfully suggest to the developers that they postpone further application or diffusion efforts until they have made a diligent attempt to improve. Since the document is asserted to be both a preliminary and an interim statement (p. vii), this should not impose too unexpected or intolerable a constraint on project activities.

A Review of Developmental Program Goals For The Comprehensive Career Education Model

CRITICAL VANTAGE POINT: VALUE BASE

David W. Ecker

The document entitled Developmental Program Goals: Comprehensive Career Education Model presents us with a paradox: It is a deceptively easy target for those critics habitually skeptical of any large-scale educational effort to remedy social ills, as well as for those critics who do see formal education as the chief means of achieving the good life in the just society--but not by means of a career education curriculum. (The Aesthetic Education Movement is certainly a rival for classroom time.) The document is an easy target mainly because it does not argue the case for career education; it merely asserts what its adherents desire in the way of goals and objectives, with no discussion of why these goals and objectives are desirable. Bereft of supporting arguments, the matrix of "elements, themes, and goal statements" denies the possibility of counter-arguments, and thus of the rational acceptance or rejection of the matrix as a proposal for changing what happens now in schools. Instead, the matrix may well act as a kind of Rorschach test for the political, social, or educational values held by the critics.

So I shall try to resist the temptation to "free-associate"--to compare the work ethic implicated in talk about a comprehensive career education with a "play ethic," or whatever--and stick to my analytical notes. First, I shall examine the construction of the matrix in order to show how certain beliefs about the nature of learning, schooling, and indeed human-beings, are entailed in its very structure, and hence how certain values are advanced and others suppressed. Secondly, I shall discuss the larger curriculum issues facing those most directly involved in schooling--the administrator, teacher, student, and parent--in order to show how the proposed career education model is related to what is the case, what could be the case, and what should be the case in American schools. Finally, I shall offer some remarks about value bases for teaching and learning alternative to the model of "economic man."

I.

The matrix appears to be the offspring of a misalliance between the cognitive and behavioral approaches to curriculum building: It exhibits the defects of both parents and few of their strengths. Each approach reduces to a common denominator the needs and aspirations, skills and knowledge, and the beliefs and values represented by those professionals attempting to reorganize the school curriculum in terms of their specialty;

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not only to make complex problems not only more manageable but also more intelligible from a particular theoretical point of view. Thus, the cognitivist would reduce curriculum problems to the identification and articulation of concepts derived from the disciplines; ideally he would ground the curriculum in the products and processes of scientific or scholarly inquiry. The behaviorist, on the other hand, would reduce curriculum problems to the identification and articulation of desired educational objectives, objectives which are then cast in the form of descriptions of "terminal" student behaviors. The advantage, here, for some people, is that they may hold other people accountable. Presumably, any subject and any set of goals may be so treated, and hence it is sometimes claimed by enthusiasts for these approaches to curriculum-building that they are value-free. But more about this later. What is to be noted, here, is that, strictly speaking, no theoretical concepts are presented and no student behaviors described, either in the matrix itself or anywhere else in the document. If one accepts the above characterization of the two approaches as strengths, then these are serious weaknesses. So let us examine them in more detail.

The closest we get to the concepts representing the disciplines associated with career education is the set of eight "elements" presented vertically in the matrix (Fig. 3, p. 14), while the closest we get to desired student behaviors are the "goal statements" to be found in each cell. Why is this? It is not hard to reconstruct or imagine what happened. "Any subject," said Bruner, "can be taught effectively in some intellectually honest form to any child at any stage of development." Accepting this pronouncement as fact, and following Marland's command, "Career Education Now," (significantly, the first of 55 documents listed chronologically in Appendix E), a small number of vocational and technical education specialists identified "eight elements that encompass career education," elements judged to be both "necessary and sufficient" by seven consultants. Then some 350 teachers, guidance counselors, and administrative personnel in six public school systems were invited to workshops in which goal statements for each element at each grade level were drafted and performance objectives for each goal were specified. The CVTE staff observed that many goals tended to be repeated across an element at successive grade levels, so 32 "themes" were identified. The goal statements themselves remained "grade-specific" and some 1500 statements were produced. At this juncture, it "became apparent that the most appropriate level of specificity within the matrix would be at the goal statement level," undoubtedly because each statement, in turn, called for a set of performance objectives which collectively must have yielded thousands of items. Performance objectives are now part of the curriculum units being developed and none appear in the matrix. But it is not necessary to view these items to understand why the "technical editing" provided by Westinghouse Learning Corporation was needed, namely, to "consolidate content," "add more specificity," "eliminate duplication," and generally refine themes and goals in order to make them fit the matrix. If one builds such a model, this is logically what must be done. But in sorting out items according to their level of specificity, one also decides at what level genuine theoretical and practical disagreements over the means and ends of career education may take place. Moreover, the "editors" decide who shall resolve these differences.

One way to achieve agreement when large numbers of people are involved in a joint effort is to merge factual and valuational issues by raising the level of abstraction of the elements, so that everyone can believe that his own professional ideas, activities, or programs are compatible with one or another element. Indeed, the eight elements of career education--Self-Identity, Educational Identity, Career Identity, Economic Understanding, Career Decisions, Employment Skills, Career Placement, Self-Social Fulfillment--read like chapter headings in a book on the subject.

We can appreciate the difficulties posed if curriculum-builders were actually to present administrators, teachers, and students with concepts taken directly from the literature of human growth and development, vocational education, etc. Controversy would be guaranteed, since powerful concepts will be found in theories that are logically incompatible one with another. And this seems necessarily so, because theories purporting to explain the same phenomena cannot all be true while they could all be false. Assuming the ordinary meanings of the words, truth is a value to which educators appeal. Yet because the theories which yielded the concepts which yielded the elements of career education are not identified, scholars as well as laymen are not able to check even for the accuracy of translation from theory to practice. But now let's move as far as we can in the other direction.

From the top down, here is an example of the continuum: "It is essential that each person know himself and develop a personal value system." This statement is referred to as a "developmental concept." It allegedly provided the basis for the first element, Self-Awareness. Self-Awareness is articulated by means of six themes and 22 goal statements at the level of kindergarten, while the same element and same six themes appear at the twelfth-grade level but with 16 goal statements unique to this level. What is expected, then, of five-year-olds? Theme 1 reads: "The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals" while the first goal statement reads: "The student will become aware of his interest in certain toys." For seventeen-year-olds, we find the same theme but the first goal statement there reads: "The student will evaluate the successes and failures in his educational program and develop an understanding of occupations in which he might be successful." Now the strict behaviorist, of course, will be quick to point out that these goal statements are still not descriptions of observable behaviors; one cannot observe a student's awareness, for instance, but only some performance that the curriculum builder is willing to accept as evidence of awareness.

Thus, the reader (including prospective clients for career education) cannot critically examine either end of the continuum, from conceptual base to behavioral outcomes.

II.

One can examine the middle of the continuum, however, and what strikes me as a potentially serious source of misunderstanding is the ambiguous language of the matrix, which confounds beliefs about what specialists want students to do in career education with beliefs about what they will do. Unfortunately, every component of the matrix is expressed in the sentence form: "The student will do X". Taken by themselves, each unqualified statement could be understood as referring to the student's determination or to the authors' speculation, prediction, promise, permission, or command. In the context of the matrix, of course, the statements more nearly assume the sense of commands for students and (by implication) their teachers.

It seems to me that the success of any curriculum reform requires attention to a much wider range of distinctive yet dynamically related issues, each calling for a different kind of resolution. At the very least, questions concerning what is, what could be, what ought to be, and what will be the case in career education should be answered unambiguously in descriptive, hypothetical, prescriptive, and predictive language, respectively, And, ideally, scientific and philosophical inquiry would provide clear options for political, social, and educational decisions.

Yet the curriculum planner who would use the matrix must begin by prescribing performance objectives in terms of what students ought to do in each grade, virtually in the absence of empirical evidence of what teachers and students can do in each grade. The authors, themselves, admit that a theory of career education "is still in the process of emerging" and that "[curriculum] units directly applicable to career education were [found to be] largely non-existent, and the units would have to be either substantially modified or developed within the project" (Goals, p. 16).

The general problem arises out of the logical requirement that any prescriptions about what someone ought to do entails the belief that he can do it. If it were demonstrated, for instance, that a person physically cannot do X, then it would be irrational to argue that he nevertheless ought to do X. Yet even with evidence that someone can do X, it does not follow that he ought to do it. Moreover, even when X is justified in terms of a value premise, and the individual can perform X under the test conditions set by the school, it does not necessarily follow that he will do X on his own, in or out of school. The foregoing analysis may be generalized and formally recast as a matrix for curriculum planning (Figure 1.). With it we can characterize the limitations of the cognitive and behavioral approaches to curriculum problems with more precision.

Specifically, the matrix of developmental program goals provides general answers to some of the questions (C-1, C-2, C-3, C-5, C-8 in Matrix for Curriculum Planning) but not other questions (C-4, C-6, C-7, C-9) concerning what shall be the case in career education. It answers none of the questions concerning what is the case (A-1 through A-9) and none of the questions concerning what could be the case (B-1 through B-9) in career education. The authors could well argue that their matrix was not designed to answer these questions. My point, however, is that any answer to any cell of the 27 cell matrix for Curriculum Planning inevitably will have a dynamic affect on the answers one can or will give to the questions in all other cells, whether or not the questions in these cells are recognized and attended to by the curriculum planner. The vertical interactions are fairly obvious. The horizontal interactions are more complicated, but here is an attempt at summarizing them:

1. Answers in Column A cannot set limitations on answers in Columns B and C.

2. Answers in Column B will always include but go beyond answers in Columns A and C.

3. Answers in Column C cannot be justified solely with reference to answers in Columns A and B.

Because the CCEM Project has, in effect, restricted itself to the task of answering only five of the 27 questions in our matrix, we are left with no way of analyzing the totality of interactions that must have occurred. Therefore, we cannot now judge the conceptual or empirical adequacy of the developmental program goals in their present context.

III.

While it has not been possible directly to analyze the value base of the CCEM matrix, we have drawn out some of the assumptions made by the authors about the determination of values. These assumptions basically are a combination of (1) the behavioristic belief that people will do what is good for them when they are rewarded for doing so, and what is good for them in the classroom should be determined by specialists and teachers; and (2) the cognitivistic belief that when people know what their career choices are, and which choice is good for them, then they will choose what is good for them, the range of choices being determined by the needs of society. There is also what I would call an experiential dimension built into the matrix, but the elements most closely associated with the personal and qualitative aspect of one's life--"Self-Awareness" and

Figure 1.

Matrix for Curriculum Planning

	A. WHAT IS THE CASE?	B. WHAT COULD BE THE CASE?	C. WHAT SHOULD BE THE CASE?
1.	What is now taught?	What could be taught?	What should be taught?
2.	In what order?	In what order?	In what order?
3.	To whom?	To whom?	To whom?
4.	By whom?	By whom?	By whom?
5.	Toward what ends?	Toward what ends?	Toward what ends?
6.	By what means?	By what means?	By what means?
7.	Under what conditions?	Under what conditions?	Under what conditions?
8.	By what criteria for judging success?	By what criteria for judging success?	By what criteria for judging success?
9.	Who now answers the above questions?	Who could answer the above questions?	Who should answer the above questions?

"Attitudes and Appreciations"--are well subordinated to career outcomes.

As we have seen, the educational value of the young child at play is to be measured in terms of his awareness of his aptitudes and interests as they relate to his job potential. Play under such conditions could readily become work. Of course, there is always an aspect of play that is work-like, and perhaps there should always be an aspect of work that is like play. But the identification of play with work is the danger. There is a larger issue here. For young and old, an aesthetic experience is that experience intrinsically valued by the person having the experience. The experience may have extrinsic values as well; i.e., lead to a job at some point in the future. But if the student is constantly made aware of this relationship over 13 years of formal instruction, he may well learn to subordinate whatever intrinsic value he finds in his immediate experience to extrinsic values always, by definition, to be round in the future. The proper balance of aesthetic and "practical" concerns is, of course, a central problem of contemporary life, and the value orientation of any curriculum reform will have a bearing upon this relationship.

How the authors might explain why some students become dentists, lawyers, secretaries, plumbers, teachers, truck-drivers, housewives, etc., while other students drop out of school and the world of work altogether, can also be inferred from their assumptions. Presumably, if career education is made "an integral part of the total educational program"(Goals, p.12), at least some social problems would be alleviated. It is interesting that no mention is made in the document about job dissatisfaction, unemployment, rising welfare roles, discrimination of minorities, or any other of the career-related issues facing Americans in the seventies.

Now curriculum building always involves choices. A curriculum plan is the result of decisions to work toward certain educational objectives, rather than others available, and these decisions must be based partly on estimates of what students can and will do, etc. Unfortunately, the typical curriculum guide represents little more than a reflection of what practices teachers believe have worked for them in the past and will continue to work for them in the future. To what extent this will be true of the curriculum units now being developed for career education remains to be seen.

How then, can anyone reasonably decide what the schools should do? Many proposals and programs are competing with career education for a place in the schools. I have mentioned the Aesthetic Education Movement, but there are Basic Education, Humanities, Science, and Social Studies Movements as well. It seems to me that one way to locate genuinely alternative value bases vis-a-vis career education would be to have scholars, administrators, educators, teachers, students, researchers, and specialists representing movements that plausibly have a stake in what happens in public education, to respond to questions like those in the Matrix for Curriculum Planning. Out of such an effort there might emerge not only the image of "economic man" but also a workable model of career education; likewise, with the images of "aesthetic man", "political man", "ecological man", "social man" and so on. Without these hard answers, the images remain just that; they may stimulate enthusiasm and action images alone cannot produce curricula having much chance for success.

A Review of Developmental Program Goals For The Comprehensive Career Education Model

CRITICAL VANTAGE POINT: RESEARCH BASE

Donald E. Super

In considering the utility of Developmental Program Goals: Comprehensive Career Education Model one must examine (1) the conceptual adequacy of its elements and themes, 2) then the adequacy of the translation of themes into goals, 3) eventually their translation into performance objectives and activities, and 4) their research base. This paper focuses on the research base, but before and even while doing so it is important to deal briefly with their conceptual adequacy and with the quality of the translations, for if the concepts and translations are inadequate the quality of the research base becomes irrelevant.

Some Preliminary Considerations

Conceptual Adequacy. The term "career" is used not only in the term "career education," but in the writings of the educators who provide leadership for the well-financed program which has now beeome something of a movement and in the CCEM Goals document. The concepts of "decision-making," of "exploration," and of "preparation" are also of central importance.

Career, according to Webster, comes from the French word meaning high road or course, and originally from the Latin word for cart. It is defined as "a course of continuous progress in the life of a person" and as a "field for, or pursuit of, consecutive progressive achievement, especially in public, professional, or business life." Sociologists define it as an "occupational sequence," sometimes with orderly and sometimes with disorderly or discontinuous patterns. Vocational psychologists have used the term to denote "the sequence of occupations, jobs, positions...throughout a person's working life," viewing continuity as that provided by the life of an individual regardless of the continuity or discontinuity in the sequence of his occupations. It is noteworthy that only the dictionary treats the term "career" as a synonym for occupation, and then to denote only higher level occupations, in which the progress of the individual is orderly; the dictionary has no term for a discontinuous career. The social and behavior sciences, and education, are better served by the more precise restricted definition of occupational sociology and vocational psychology, which takes into

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account both continuity and discontinuity in the lives of persons.

With this definition in mind, we can consider the CCEM use of the term "career." Neither it nor the term "occupation" is defined explicitly, but implicit throughout is the presumed synonymous character of the two terms: what is called career education is in fact occupational education. This can be seen in statements such as the following: "Career identity is defined as the invididual's selection of an appropriate role or roles in the world of work" (Goals, p. 8); "The element employability skills is concerned with locating and obtaining career placement both on an initial and an advanced basis..." (Goals, p. 9); "He learns about working conditions and life-style associated with five career clusters" (Goals, p. 25), the clusters being elsewhere described as the clusters of occupations in the Dictionary of Occupational Titles rather than as clusters of similar careers as in the career pattern research. One of the current strains in the Educational Establishment results from the fear of vocational educators that the definition of career education may result in diverting funds from occupational education, as they conceive of it, to true career education--a danger which they may avoid by taking a lead in developing the operational definitions.

The result is that the developmental concepts of career psychology have been used only in recognizing that a more general "career (actually occupational) awareness" must precede "career (again, actually occupational) exploration," which in turn must precede what is called "career (again, actually occupational or vocational) preparation." To misuse terms thus is not only to distort meaning, but to pervert what might otherwise bacome a major force in making education relevant to a dynamic and multicultural society.

Key Concepts and Their Translation into Themes and Goals. Starting with eight propositions identified as "key concepts" and as "areas of career education," the authors of the Goals identify eight corresponding "elements" which they and their reviewers consider to comprise the matrix of career education. Then "goals," more grade-specific and more operational than the themes which cut across grades, were derived. The key concepts include awareness of self, education, career, and the economy; decision-making, beginning competency, employability skills, and attitudes and appreciations.

The comprehensiveness of the key concepts was considered not only by the authors, but also by reviewers, and found adequate. One more judge is hardly likely to improve upon the judgments of appropriate experts who keep their perspective. But it is pertinent to note that research on career development has confirmed the importance of knowledge of self, of educational and occupational systems and opportunities, economic conditions and trends, decision making, occupational competency, employability and socialized attitudes. Everything thus hinges on the definition of careers, which is not adequate.

The adequacy of the translation of the key concepts or elements into themes and goals requires somewhat more attention in this preamble to a consideration of their research base. Not all will be discussed; instead, attention is here focused on a few which are selected as examples of strengths and of weaknesses of which users of the *Goals* should be aware.

Career awareness must be of central importance in any conceptualization of career education. In the CCEM it really means occupational awareness; awareness of the variety of occupations which now exist, of the categories in which they fall, of the bases for categorization, of their duties, requirements, methods of entry, changing characteristics and ways of life. There is no mention of sequence of positions occupied and of occupations pursued by an individual in the course of his lifetime, no consideration of the life stages through which a person progresses except for those of exploration (which is made unrealistically short and definitive), preparation, and entry. No attention is paid to the varying types of stable, conventional, unstable, and multi-trial career patterns which have been identified, nor of their determinants and their implications for career education and guidance. Despite the importance of occupational awareness, which is well handled, the CCEM concept of career awareness, central to the conceptualizing of career education, is therefore quite inadequate.

Its translation into themes and goals, often well handled, at times leaves much to be desired. This is particularly true when the attempt to formulate themes so that they cut across grade levels leads to formulations which are appropriate to a given grade and which thus suggest inappropriate goals for that grade. It is true when such formulations fail to lead the authors to see goals which are especially appropriate to the grade being considered. For example, in Kindergarten (*Goals*, p. 48), Theme 14, "The student will recognize that his career development includes progression through stages of educational and occupational experiences," identifies goals of recognition of the need for preparation for the performance of a task, of the enhancement of ability to perform a task by preparation, and of the fact that appropriate performance of a task makes possible repeated (continuity) performance of the task; but it does not set as a goal the recognition of the need to explore a field before deciding upon the tasks to be performed and for which to prepare, nor the goal of developing awareness of the sequence of stages through which growing organisms progress, especially the crucial exploration stage. Theme 15, "The student will understand the relationship between career (occupation) and life style" identifies as goals the recognition of the relationships between "behavior and success," "tasks performed and subsequent behavior," and "basic needs and behavior" in life situations, but none of these is further defined (e.g., what kinds of "tasks" and what kinds of "subsequent behavior"?). There is no mention, in this set of goals, of life style in the true sense of aspirations, values, pace of life, schedules, affiliations, use of leisure, neighborhood, or community. The themes are too often appropriate to adolescents rather than to young children, and the goals too often reflect both the inadequacy of concept formulation and of understanding of career development in children on the part of the team of authors.

Exploration, preparation, and decision-making are defined by career development specialists as processes which take place over a period of time. But in CCEM exploration ("Career Awareness" in the text, "Career Awareness" and "Career Exploration" in its Figure 1) is treated as a process which is about completed by 9th grade, leading to a decision making which, despite later review, leads to preparation ("beginning competency" in the text) for an occupation beginning with the 10th or 11th grade: "The student states his goals (11th Grade) and examines decisions required to pursue them...He (12th Grade)...confirms his career plans" (Goals, p. 33)..."The student (12th Grade) will know the steps necessary immediately following high school to gain entry into his chosen career" (Goals, p. 157). Despite occasional recognition of the facts that adolescent decisions are tentative and that adult careers are sometimes interrupted, the assumption is made that vocational exploration ends in the early teens and that occupational preparation begins in the middle teens. This assumption, basic to traditional vocational education, has biased vocational education in favor of the lower middle classes and upper working classes, and it has disowned the lower classes. It stands despite the accumulated evidence that vocational exploration goes on into the early and middle twenties for most persons, and even into the middle life for a substantial number: hence the current interest in "mid-career crises".

These considerations will help users of the CCEM Goals to be alert to some of the deficiencies of conceptualization and of identification of goals, of omissions which are serious particularly in the elementary school but also are important at the secondary level. A focus on occupational to the detriment of career concepts and a stress on preparation at the expense of exploration are the two principal defects.

The Research Base

The authors of the Goals make it clear that the validity of their key concepts or elements, of their themes and goals, depends at this stage upon the consensus of experts. They propose to rely, in the future, on validation through follow-up of students who experience career education curricula, ascertaining the degree to which they contribute to their understanding of careers (occupations), their placement in jobs or in institutions of higher education, and their coping with labor market conditions.

The use of expert judgment is a time-honored method in planning a program, particularly when time permits honoring no other procedure. The qualifications of the judges are then crucial, but the Goals give no indication as to their qualifications. The long list of names tells little. Was heavy reliance on occupational psychologists and a minimal use of career psychologists (there were few if any of either) the cause of the neglect of true career concepts and goals? Was a possible preponderance of vocational educators the cause of the slighting of career concepts such as exploration and of the emphasis on early decision-making and preparation for stable careers rather than unstable and multi-trial careers? The reader has no way of judging this; he is not even alerted to these dangers.

Criterion-related validation is, of course, the ultimate proof in the scientific validation of a predictor or of a process when the criterion is itself conceptually adequate. The criteria to be proposed are not discussed in detail in this publication; they appear to be conceptually adequate as formulated. But their eventual use will be difficult, for the goals must still be translated into performance objectives and these in turn into activities designed to attain the objectives. Which of these, concepts, themes, goals, objectives or activities will be validated by the criterion relationship? Not, of course, the whole chain, but only the last link in the chain. If the activities are well carried out, if they are first well designed to attain the objectives, if the objectives are well defined to implement the goals, if the goals are well-formulated to operationalize the themes and if the themes are themselves a good step in making the key concepts more operational, then the antecedents and the consequents will be correlated or the treatment will result in a difference and the whole process (assuming the use of controls) will be validated. But if no hypothesized relationships or differences are found there will be no way of knowing whether it is the conduct or the activities, the design of the activities, the objectives, the goals, the themes, or the concepts which are defective.

Much depends, therefore, on a third kind of validation. This is the examination of the research base of the concepts, themes, and goals now identified: It is to this topic that the rest of this paper addresses itself. It would be impossible, even if the lengthy preamble were omitted, to deal with the research base for some 1500 goals, with that for 416 cells made up of 32 themes at each of 13 grade levels, nor even with the 32 themes regardless of grade level. The review must therefore be selective, deal with representative topics and issues, and be somewhat arbitrary in its statement that the research is solid, shaky, or inadequate.

Five kinds of questions can be asked about the nature of the research base.

1. What knowledge, skills, and attitudes are needed in career education?
2. In what sequence of concepts and topics are they best learned?
3. In what grades are they learned?

4. In what grades can they be learned?

5. How valid are the assumptions which are made concerning individual differences, individual development, school organization and the world of work, occupations and careers?

Some of these questions are best examined by specialists in career development, some by persons with expertise in human learning, some by developmental psychologists, some by organizational sociologists specializing in schools and in industry, and some by specialists in curriculum and instruction. The perspective from which this paper is written is that of a career development psychologist working in both schools and industry, and the focus is therefore on the first, third, and some aspects of the fifth questions: those of need, grade placement, and assumptions concerning individual differences, individual development, careers and occupations. The Goals material is not taken up under all eight Element headings; instead only three elements are considered, to allow somewhat greater depth, with attention to selected themes, and goals at critical grades, to examine (in sampling) the research base. The elements considered are Self Awareness, Career Awareness, and Decision Making; omitted (but available on request from the writer) are discussion of Educational Awareness, Economic Awareness, Beginning Competency, Employablility Skills, and Attitudes and Appreciations.*

Self-Awareness

Theme 1 states that "The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals." Underlying this theme is the assumption that individual differences in interests, aptitudes, and achievements (presumably school and extra-curricular) are related to career development and to the attainment of occupational goals. The validity of this assumption has often been well demonstrated in research. That it is desirable for the individual to understand himself and society in these respects has also been demonstrated by studies of the effects of vocational guidance and counseling even when reviewed and evaluated with negative prejudgments. The need for self awareness is thus well established, as is the validity of the major underlying assumptions. But the grade placement of self-awareness goals is more problematic. In Kindergarten, for example, Theme 1, Goal 2, states that "The student will become aware of the tasks he performs best." This is an essential aspect of self-understanding at some stage, but thereis no evidence that it should begin in Kindergarten: Indeed, it has often been claimed that guided experiences in the development of basic skills should be provided in a supportive atmosphere without focusing on this kind of self-knowledge until a better foundation than that possessed by five-year-olds has been laid. That individual differences in self awareness exist has been well demonstrated; that some self awareness exists in kindergartners is also established; it is the need to cultivate it at that age is more open to question.

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*As the reference to research could take up as much space as the substance of the paper itself, specific citations are generally not given in the text. A selected list of readings, some texts or summaries of research with appropriate documentation, and a few of the major primary sources is given instead.

By the time the student reaches junior high school the need is clearer. The organization of school offerings requires choices of courses and programs which differ in content and difficulty during early adolescence. Studies of decision-making show that decisions demand information; career decision-making involves both self and situational information. Knowledge of interests, aptitudes, and achievements is therefore needed. This self knowledge cannot be developed suddenly. The studies show that self knowledge in junior or even in senior high school is too limited for good decision making, and that reviewing test scores even with college freshmen has little impact on often unrealistic self-ratings. The development of self-knowledge must begin prior to junior high school even if not in Kindergarten.

Self Awareness, Theme 1, has among its 9th grade goals, that "The student develop, in his own words, a definite notion of his aptitudes, strengths, and weaknesses." Apart from the redundancy of the last two terms when added to the first (unless they are meant to denote achievement, in which case the phrasing is both redundant and vague), the legitimacy of this goal in 9th graders is questioned by the research. The fact that it is desirable, and required by the school system, does not prove that it is possible, and there is evidence in the Career Pattern Study that in 9th grade what is called wisdom or realism of occupational preferences (so-called occupational choices) is not wisdom, but chance. This is true even when students have had the benefit of a relatively good testing, group guidance and individual counseling program.

Career Awareness

What the CCEM calls Career Awareness is occupational awareness, confusion in the use of terms of which it is easy to lose sight. That the inappropriateness of some of the related themes to the lower grades leads to the formulation of inappropriate goals and to the omission of others has already been noted. Another illustration is the 1st grade goal for Theme 3, "The student will determine the worker qualifications related to performing the basic tasks of various occupations," the goal being "The student will recognize tasks performed by workers within his community." The goal, anecdotal evidence suggests, may be appropriate for 1st graders, but neither it nor any other goal makes mention of the qualifications stressed in the theme. To expect that theme to be translatable into a 1st grade goal may be unreasonable, given the amount of fantasy often shown in the occupational concepts of children of this age.

In the 9th grade the currently mandated need for occupational awareness is made clear by the pre-occupational curricular choice required. Theme 11, "The student will understand the variety of occupations in the world of work" has often been shown, in evaluations of occupations units and courses, to be a realistic one, and its goals, the recognition of job classifications and the description of some specialized jobs, have been proved to be attainable with 9th graders. The same may be said of Theme 13 pertaining to knowledge of worker qualifications, but nothing is said here, as in Self and in Educational Awareness, of realistic occupational preferences, perhaps to avoid redundancy. Missing, more crucially, is any reference to exploration in Theme 14, on progression through stages: The focus is on performance requirements (which begin to have some meaning here when related to education) and on entry requirements which, apart from educational requirements, still have little meaning to 9th and 10th graders according to Career Pattern Study and Career Development Study data. Whether they can have meaning is doubtful, in view of the fact that evidence on current levels of vocational maturity comes from schools with relatively highly developed vocational guidance programs.

The 11th grade is treated by the Goals as the decision-making year in some places although this function is assigned to the 9th or 10th grade in others. The first Career Awareness theme, understanding the variety of occupations which constitute the world of work, is translated into the goal of knowledge of the detailed characteristics of one's chosen fields. The research of the Career Pattern Study reveals that 12th grade boys do tend to have significant amounts of information concerning preparation requirements, entry, and supply and demand in their preferred occupations but still lack significant amounts of information concerning duties, conditions of work, and advancement. Similarly, Beardsley and O'Dowd found that liberal arts college students have much more stereotypic information concerning superficial aspects of occupations than they do about occupational duties and advancement characteristics. Detailed occupational information obviously can be acquired by older high school and by college students; education could be designed to help them acquire it. The Goals will be helpful here, although misleading at certain other points.

Theme 13, in the 11th grade, on worker qualifications in various occupations, has as goals knowing the training, methods of entry, and trait requirements for specific occupational areas without specifying whether the area should be only those which one is considering or the whole spectrum of specific occupations. If the former, relevant research shows these to be realistic goals, but if the latter, there is more to be learned that seems relevant and can be accommodated in the curriculum at this age. Theme 14, dealing with career stages, has two goals: defining and evaluating (whatever that means in this context) responsibilities in various occupations, and applying the operation of line and staff functions to vertical and horizontal mobility in various "career" areas. Introducing the concept of mobility at this point is realistic, but nothing is said about stages in the most relevant sense of exploration, and the same deficiency exists in the goals of the same theme in the 12th grade, which differ only in focusing on an occupation in which the student has had experience and on factors which would influence his mobility in a selected "career" or occupation. But the Career Pattern and Career Development Studies, and Project Talent, have shown that floundering and trial characterize the careers of at least half of America's high school students during the years from 18 to 25, and that this is true of college students as well as of members of the labor force (the 50 percent attrition rate in engineering students is a classical example of academic floundering and trial).

Decision Making

The need for knowledge of decision making is well established by research which shows that many of the position changes made by school leavers in the labor force and in post-high school education are made without adequate definition of the problem, without knowledge of what data to consider, and without having and weighing important relevant data. During the post-high school years there is little attention to loss of equity in an occupation, changes are made for gains which do not materialize, and prospective openings are not sufficently well reconnoitered before taking them. Studies of students' perceptions of the locus of control repeatedly show that many students do not feel that career decision making, and future-oriented decision making in general, is within their power. But studies of independence training in childhood, in which children learn to act independently and to learn the consequences of their behavior, and other studies of effective and ineffective adults such as combat fliers, suggest that decision making can be practiced with ensuing feelings of control over one's life and with increases in competent behavior.

In kindergarten, the decision-making themes involves the stating of goals, using resource information, identifying information, identifying and choosing appropriate alternatives, and taking implementing steps as part of making career decisions. As phrased, these seem much too mature for kindergarten, but this again is a result of seeking to have these cut across grades and perhaps of having formulated them first for older students. The derived goals are more suitable to the stage of development. e.g., stating reasons for choices, recognizing that experience provides information, and recognizing that one does in some situtations have a choice. It should be possible to formulate performance objectives and activities which would help kindergartners attain these goals; they do not yet involve careers but relevant decision making. The assumption is made that if decision making is learned in other situations, the student will be able to apply it to career decisions, assumptions which both longitudinal and retrospective studies of independent behavior and of career development appear to support.

In 6th grade (to sample that level) the same themes appear. Goals include recognizing the bearing of aptitudes, interests, and other characteristics on career goals and decisions, systematic investigation of answers to questions about occupations, knowing the factors which influence decisions, and developing competence in making decisions. There is nothing yet about actually making career decisions, and the awareness and knowledge sought are appropriate to the age level.

In the 9th grade the themes are in some instances translated into goals appropriate to the developmental stage of the student. For example, some involve decisions as to occupations to consider and explore. Gelatt and others have demonstrated that the study and practice of decision making is practical in junior high schools. But two goals are more questionable, for they involve making not just short-term but long-term decisions and the use of aptitude, interest, and other personal and worker trait data in personal career decisions. If the term "career" were used by the CCEM to denote the sequence of decisions made, steps taken, goals sought and positions occupied by an individual,these goals would be appropriate. Students do make short-term decisions such as those about courses to take in the next school year and they do, often with insight although often without it, bring personal and role data to bear on the making of these decisions. Even the making of long-term decisions is empirically justified if periodic re-evaluation is recognized and provided for, but there is nothing in the 9th grade goals to suggest that this is done. More important still is the CCEM use of the term "career" as a synonym for "occupation." These goals must be understood as goals of short- and long-range occupational decision making. The Career Pattern and Career Development Studies, and research with vocational maturity measures, make it very clear that neither 9th nor 10th graders are ready to make such decisions even in schools which have well developed educational and vocational guidance programs.

The 10th grade goals recognize the tentative nature of planning at this stage in connection with Theme 20, the importance of more presumably but not explicitly exploratory experience with Theme 21, and the flexibility of the decision-making process and the possible need to change decisions with Theme 22, all well demonstrated by the longitudinal studies of careers. The 11th grade goals do the same, being explicit as to the tentative nature of long-range decisions, the continuing accumulation of information together with developing skill in finding and using it, the continuing exploration of career goals and of their implicit decisions, and continuing reassessment of decisions and goals in the light of new data. So do the 12th grade goals. Here too the translation of themes into goals is supported by the longitudinal research: Flexible planning is the keynote, together with developing skill in the formulation of questions and the collection of relevant data for self and occupational assessment and for the making of decisions as they need to be made. Only one 12th grade goal appears questionable, the registration of the student with a placement center: This implies that all students are going to enter the labor force on leaving 12th grade and should use a placement service in doing this. But research shows that most jobs are obtained by other means, that these other means are better for some types of employment, and, most obviously, that many students do not enter the labor market but go on to further education or training.

The goals are inconsistent in that at times they recognize entering post-high school education and training as placement, but at other times they treat job placement as the universal objective on leaving high school. That even job placement should be treated as tentative, as part of the exploratory process, is brought out by the longitudinal studies which show that at least half of those who graduate from high school continue exploring for several more years while at work or in college, many floundering rather aimlessly until 25 and others somehat more systematically trying out what seems to be the best tentative decision. These last are a minority, but they demonstrate the importance of an exploratory perspective even at the beginning of adulthood.

Conclusions

In conclusion, what can be said about the conceptual adequacy, the translation of concepts into goals, and the research base of Developmental Program Goals: Comprehensive Career Education Model?

I. Conceptual Adequacy

A. The Term Career is used in a way which distorts meanings and leads to serious omissions. It is used as a synonym for occupation, neglecting the developmental constructs of career patterns and of life stages.

B. The Comprehensiveness of the Matrix therefore suffers, for Occupational Awareness is dealt with comprehensively, but Career Awareness in the sense of awareness or knowledge of the sequences and the continuities and discontinuities of working lives is neglected. The process of vocational exploration, dealt with in connection with Occupational Awareness, is not seen in proper perspective, is assigned too short a time span, and is expected to lead to emerging choice in early or middle adolescence instead of to emerging decisions during the decade from early to late adolescence and young adulthood.

II. Translation Into Goals

A. The Translation of Concepts into Themes is done from a largely adult and adolescent, rarely from a child, perspective. The result is that the thematic formulations make it difficult to derive goals which are soundly based in child development principles. The omission of the concept of careers also leads to the omission of career themes such as those of exploration and vocational maturity.

B. The Translation of Themes into Goals suffers in the same way. In particular, some goals are formulated in tentative, flexible terms, while others are phrased in definitive terms which are inappropriate to the age level according to vocational maturity research. Exploration is expected to end with the 9th or 10th grade, occupational preparation to begin in 10th grade with re-evaluation and confirmation of choice in 11th and 12th grade. Despite occasional statements about personal flexibility and a changing economy the picture is one of stable people in a static society.

III. The Research Base

A. The Methodology of establishing the concepts, themes and goals involves the use of experts, but their expertise is neither questioned nor made clear.

B. Evidence of the need for grade placement of elements, and traits underlying the elements, themes, and goals is not adduced. A reader who knows the research in several related areas can recognize the implicit research base in many instances, the unsupported propositions in others, and the assumptions which are contradicted by available evidence in still others. The early expectation of self-awareness, the shocking shortness of the exploratory process, the premature postulating of definitive decisions, and the poor provision for reassessment and re-evaluation, are examples of failure to make good use of the research base, failures which should make a cautious user of the Goals question every assumption. Briefly, those concerning Self Awareness, Career Awareness (as contrasted with Occupational, to create a new element) and Decision Making most often need questioning; those concerning Educational Awareness and Beginning Competency are occasionally to be questioned; and those concerning Occupational Awareness (to rename an Element), Economic Awareness, Employability Skills, and Attitudes and Appreciations appear to this reviewer to be best supported by research.

Test authors are expected to report on the reliability and validity of their instruments, and test development specialists have carefully elaborated upon their constructs, methods, and ways of reporting concerning them. Is it too much to expect curriclum developers to do the same? The original and continuing contracts with the Center for Vocational and Technical Education at the Ohio State University may not have contemplated nor permitted development work on the scale which became necessary in order to achieve effectively the basic contract goals. The Center cannot therefore be faulted for these defects, but defects they remain.

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A Review of Developmental Program Goals For The Comprehensive Career Education Model

CRITICAL VANTAGE POINT: DEVELOPMENTAL PSYCHOLOGY

Dorothy H. Eichorn

Several drafts of this critique began with a rationalization as to why I could not take a developmental vantage point without trespassing on some if not most of the other vantage points despite my lack of formal knowledge about them. Rather than assuaging guilt feelings, however, this statement compounded them, because it seemed banal and rife with jargon. Relief came with the realization that the basic problems with the CCEM program goals were such that few if any of the reviewers would be able to avoid trespass, i.e., our major criticisms would be similar, although differing somewhat in emphases and phrasing.

Because developmental psychology covers the life span I have interpreted my task to include assessing the goals document in terms of appropriateness and possible pitfalls for adults who may develop or implement curricula as well as for students who may be enrolled in those curricula. Whether the vantage point is that of adult or student, the questions are often the same. However, decisions on the adoption or rejection of curricula and the methods of implementation of those adopted rest primarily with adults, so I shall raise first adult-oriented issues.

Unless additional material is provided, potential users of the CCEM model will be faced with such "givens" as the fact that four models exist, this one school-based, without an historical background, much less a rationale, as to why and how any model of career education came to be developed. One infers that support for the development of four models of career education by the Office of Education was predicated on two basic assumptions: 1) Whatever is or is not now being done in any combination of settings in the way of vocational education is yielding unsatisfactory results, and 2) this unsatisfactory state of affairs can be remedied via structured educational channels. At least some of the assumptions underlying the selection of the particular models can also be inferred, but this exercise is not necessary here.

One does not have to be trained in any of the disciplines represented among the reviewers to be aware of phenomena that may have prompted the first assumption. The popular press has carried many reports of (1) the increasing incidence of absenteeism, alcoholism and other drug usage

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cautious optimism about the results of experimentation with occupational or career education, responses that reduce the likelihood of well directed experimentation would be unfortunate.

Among the studies that give reason for optimism are those indicating that positive changes can be produced in the school setting not only in skills that have been the traditional province of the school, such as language usage, but also in other occupationally relevant ones such as self-evaluation, decision making, and intergroup attitudes. However, the same bodies of data, as well as others, contain reasons for caution in expecting too much.

Results are often temporary or difficult to interpret because of confounded independent variables, and a method useful in one circumstance may not be in another. A few examples from studies on the reduction of intergroup prejudice through courses in school will serve to illustrate some of the complexities. Although most investigators have found that youngsters with considerable information about another group are more likely to have favorable attitudes toward that group, the direction of the influence is not clear. Do favorable attitudes result from increased information, or are those with favorable attitudes more likely to acquire information, as some other studies indicate? Or, indeed, are attitudes and information both a function of other factors in the personalities or circumstances of the persons observed, as still other data suggest? In at least one experiment "vicarious experience", i.e., reading about, acting out, and listening to the experiences of minority group members, was more effective than either direct experience with them or instruction about prejudice. Yet increased contact with members of another group is reported in some studies to reduce prejudice and in others increase it.

Developmental limits that even concentrated, highly sophisticated intervention will not surmount probably exist--even Bruner no longer seems to maintain that any subject matter can be taught to children of any age if presented at an appropriate level in an appropriate way. One source of data on this point is Professor Super's work. Ninth graders who had participated in a counseling and guidance program well above average in the services offered (e.g., types of tests, individual counselors) but still did not understand enough about themselves to deal systematically with questions of occupational preference.

Data from our three longitudinal studies, which have followed persons from infancy or preadolescence through to their 40's or 50's, offer another reason for caution. Circumstances may propel a person into an occupation or prevent him from entering one whatever his preferences or preparation. Each of us has enough anecdotal evidence for this statement from his own observations to make examples unnecessary. However, the role of interactions between developmental characteristics of the person, particularly those over which he has no control, and opportunities may not be so obvious, and, hence, is worth illustrating. A boy whose family had very limited financial resources and no experience with, nor aspirations for, advanced education reached adolescence in a seaport city during World War II, when labor was in short supply. He was an early maturer--i.e. advanced physiological maturity as reflected in skeletal x-rays, gonadal development, and growth in physical size and muscular strength. He needed to earn money to help support the family, and historical and personal conditions made it possible for him to obtain a job as a stevedore. The GI Bill provided both funds and a "Zeitgeist" conducive to college entry when he was discharged from the armed forces. His adolescent experience on the docks had aroused his interest in labor economics, and his college major and subsequent career were in this field. One of his classmates of equal IQ and age came from a family advantaged in terms of both income and education. He was a late maturer, relatively small and weak for his chronological (but not physiological) age during adolescence and had the interest of a boy of his physiological age. While the first boy was on the docks he was at summer camp. His college major was also economics, because he was slated to enter the family business. Years later he left that business to enter graduate school in another profession which he now practices, although after several shifts in the nature of that practice. Our group data show that late maturing boys tend to be older than are the average or early maturing when they achieve occupational stability.

Although the influence of experiences and opportunities outside the school is mentioned at several points in the goals document, the general impression with which the reader emerges is of the school operating in isolation and with its present structure. This effect is disturbing for two reasons. First, it contributes either to unrealistic optimism or, as noted above, to the negative reactions that follow on the recognition of lack of realism. Second, it helps to preclude adjustments in the curriculum and in the world of work that may be advisable from a developmental point of view. Why should the focus of change be primarily on the student? If there are limits to the extent to which maturity of interests and occupational understanding can be advanced through educational intervention, as data cited earlier and later in this paper suggest, then perhaps greater flexibility about decision points should be part of the curriculum reform proposed. Other nations faced with similar social problems, e.g., the British, are abandoning curricula involving early educational decision points that lead to occupational channelling. Are pivotal educational decisions really necessary at the 9th grade, or, indeed, even at the 11th or 12th? Colleges are becoming more flexible in admissions requirements, and many industries prefer or find necessary "in-house" training programs, either because the skills needed are so highly specialized or, increasingly, because new industries emerge or because technological advances change the nature of the skills required in the existing ones. Further, industrial psychologists report that the workers who survive best and advance in our rapidly changing society are those who have "learned how to learn" or have multiple skills or have skills that transfer readily. These observations argue for flexible educational programs as well as for preparation for change.

Given the nature of the model and of developmental psychology, assessing the appropriateness for career education of each goal for each element grade by grade would not be feasible even without page restrictions. The constraints imposed by the model are three. First, one cannot evaluate in terms of career education when the goals are stated in terms of occupational education. My solution to this problem is to "pass the buck," assuming that other reviewers will provide the background for making that distinction and that Dr. Super in particular may be able to be more constructive. Second, the way in which many of the goals are stated, e.g., "The student will develop knowledge of different economic institutions," is so general that the developmental level intended cannot be inferred. Knowing that banks or stores exist is quite different from knowing something about the complexity of their operations and still more different from understanding monetary or marketing principles. Had the goals been presented either as "performance objectives," which seem to be the educator's usual starting point, or at a level about mid-way between such specificity and the generality of the mission statements, the developmental level to which they were addressed would probably be less ambiguous. Third, whether some goals are to be implemented primarily through existing curricula or through a separate curriculum with units for each element is not clear. The structure of the matrix and references to the development of curriculum units imply the latter, but statements in the Overview and Purpose sections stress integration, e.g. "infuse career education into all levels and aspects of the school curriculum" and "interactively link the goals of career education with the curricular structure of schools, providing a means of unifying subject matter content with career development theory". The developmental as well as practical implications of the two approaches differ considerably. As noted more specifically below, research on concept development suggests that an integrative approach holds more promise for achieving the long-term goals of the model.

Three major limitations of the developmental psychologist also contradict a goal by grade evaluation. First, no one can be sufficiently knowledgeable about the data and theories bearing on all of the eight elements. The substantive topics encompassed by developmental psychology are too numerous and diverse--essentially all of those dealt with by psychologists with topical rather than methodological labels--and the literature on each is too extensive. Expertise usually comes in such forms as "concept formation" and "dependency" and even then within a restricted age range. Second, not only is there no single definitive theory of development, there is no such theory within even so circumscribed a topic as socialization to sex roles of discrimination learning. Any "authoritative concept" is so only in the sense that it was advanced by an expert, engaged enough interest among others to generate a body of research, and has not yet been completely discredited by the results. Even the most thoroughly researched topics provided only a framework of successive levels, each of which spans an age (and, hence, grade) range.

This fact is not necessarily a disadvantage, given individual differences in rate of development and the use of ungraded classes and self-instructional materials to accommodate to them. Objectives can be set in terms of the beginning and final level expected within a grade grouping, e.g., kindergarten to second grade. Third, in the absence of definitive data about the influence of experience and training, one runs the risk of accepting what is, i.e., what the data now available indicate to be the developmental sequence, with what might be given optimal conditions. Under this set of circumstances, the most useful strategy is to outline what seem from a developmental perspective to be important problems or pitfalls, point to relevant bodies of literature, and summarize some of the most relevant findings.

Interpreted literally, a number of the statements in the description of elements (pp. 6-11) and in Section II (Goals) imply a more advanced level of development than either empirical data or developmental theories now available suggest is typical. Consider the following:

> "The student entering school has some knowledge and attitudes about himself, what kind of a person he is, and what he hopes to become." (underlining here and elsewhere added by reviewer)
>
> "The entering student has some understanding of the decision-making process and possesses some decision-making skills. If he is able to understand cause and effect relationships. . ."
>
> "determines a course of study for grades eight through twelve in conformance with a tentative career choice" (grade 7)
>
> "knows how to pursue his chosen career, develops an action plan, and takes the steps which are necessary to implement his plan" (grade 12)
>
> "will become aware of cultural and religious differences; will become aware that he possesses unique characteristics" (K)
>
> "will understand reasons why people work" (K)--the first child that really understands that is going to put a lot of psychologists out of business
>
> "will identify ways in which he is emotionally like and different from his peers" and "his personal characteristics" (grade 4)
>
> "will establish a preferred life-style" (grade 4)

"will become aware of his responsibliity in making accommodations for his future" (Economic Awareness, grade 4)

"will understand the concept of life-style and its effect on career selection" (grade 6)

"will use knowledge about his ability level to identify appropriate career opportunities" (grade 8)

"will select an appropriate high school curriculum in keeping with his tentative career goals" (grade 9)

"will correlate the monetary benefits of his chosen occupational field with his chosen life-style" (grade 9)

These quotations are representative of goals that seem developmentally inappropriate in either or both of two senses: 1) the level of conceptual ability required, or 2) the degree of personal stability and integration demanded. With some important exceptions, goals unrealistic in the former sense are more common for the lower and middle grades, while premature expectations with respect to consistency of interests and abilities, adoption of a "life-style", adequacy of self-appraisals, and informed career decisions occur more often at the upper grades. Assumptions of these two sorts are most prominent in the elements of Self-awareness, Career Awareness, Decision Making, and Attitudes and Appreciations and least in the element of Competency, the domain in which educators are most experienced.

The literature usually categorized under the rubrics of learning, cognitive development, and concept formation are, of course, germane to the developmental appropriateness of goals for all elements. Controversies still abound about continuity vs. discontinuity in development, the universality and invariance of stages and sequences, and the extent to which experience and training accelerate conceptual development. Nevertheless, the data collected in a variety of theoretical frameworks yield a sufficiently consistent developmental description to be useful. In the ensuing discussion Piaget's terminology is prominent. This is a matter of convenience, and no value judgements are implied.

In brief, the young child's thought is concrete and relatively undifferentiated. He has only a primitive grasp of cause and effect and tends to respond to, and be distracted by, superficial characteristics of stimuli. Understanding of things at a distance, particularly in time, develops slowly. Not until about 14-16 years is the average child able to "think about his own thought" and to deal with several variables simultaneously and systematically, i.e., to test alternative hypotheses or courses of action. Development is facilitated by confrontation with data that do not fit existing conceptual schema and by experience with many different instances of a concept. The latter findings suggests that occupational awareness and exploration are more likely to be promoted by information provided in several curricular contexts than by simply presenting special units on vocations.

Research on self concepts is more often done in the context of theories of personality development, particularly of socialization, than of concept formation. Definitions of self awareness or self concept are varied, and the data often seem contradictory. When awareness is defined as self appraisal in the broad psychological sense, the data suggest that the developmental course is from little capacity to differentiate oneself from others (especially from persons one likes or one's "ideal"), through socially acceptable stereotypes to individualized conceptualizations that include reasonably realistic assessment of assets and limitations. In several theories, establishing personal "identity" is seen as the major developmental task of adolescence. On the other hand, there is evidence that gender identity is well established by three to four years and that awareness of ethnicity (particularly where racial prejudice is common) and generalized attitudes of self esteem appear by the early school years. Low self esteem is associated with feelings of helplessness, high anxiety, and poor adjustment to, and achievement in, school. Parental practices have long term effects on self esteem and correlated behaviors and feelings, although peers and other significant adults, such as teachers, may confirm or modify their influence. A judicious mixture of emotional support with demands and opportunities for autonomy promotes positive self esteem, responsible attitudes, a self-confident approach to tasks and other desirable social behaviors. Goals which lead to "odious comparisons" of self with others or which emphasize status contrasts among occupations and life-styles may be more detrimental than helpful.

Research on "moral" development is again socially acceptable, and data on attitudes toward others come from this source, particularly the increasing literature on "prosocial behaviors." Although the data on developmental trends and influential variables obtained under different theoretical orientations are often at variance, intellectual level and interactions with peers appear to be two factors of importance. The child's early judg
with varied groups and adult models, he comes gradually to take into account the circumstances and motivations of others. Studies on attitude changes mentioned earlier are obviously also of relevance for goals in the element of "Attitudes and Appreciations".

Reference was also made earlier to some findings on "vocational maturity." and Dr. Super is addressing this research, so a few observations will suffice here. Lack of information and limited conceptual ability are probably not the only factors in the young child's statement that he wants to be a policeman, cowboy, or mother. Theories of affective development would lead us to suspect that while acquiring self control is still a major task, positions of power and authority are attractive. Expressed occupational preferences advance from the concrete and superficial through general categories such as scientist or businessman to (but usually not until after adolescence) more specific ones such as accountant. As revealed on tests of vocational interest, patterns of interests change markedly during adolescence and considerably between late adolescence and early adulthood.

The broader literature on interests and abilities also counsels against expecting too much stability too early. Recreational preferences, for example, are much influenced by circumstances as well as by increasing cognitive and physical maturity. Some consistency in personality characteristics is indicated by correlations over short periods of time, but over a longer span the correlations are at best moderate, especially if the measures are of specific traits or abilities. If one looks for "enduring orientations", e.g. passive vs. active or extroversion vs. introversion, or for continuities rather than consistency, i.e., relationships across age in behaviors that differ superficially but serve similar purposes, greater stability is found. However, longitudinal data on standardized IQ tests remind us that large changes in measured ability can occur among a sizeable proportion of a sample even when group correlations are high. Case histories also contain many instances in which early evidence on specific abilities was misleading. Churchill's ability to deal with the English language is a classic example.

Various combinations of the findings cited lead one to question two emphases in the goal matrix. One is the strong stress on the future. Not until about the sixth grade does the average child really master both our clock and calendar. Ability to project himself into the future in a meaningful way comes even later. Learning is the child's work, and positive experiences with it seem to contribute more to positive attitudes and habits than does the prospect of much delayed rewards, the meaning of which he does not really comprehend. The psychometrist's axiom that the best predictor of future behavior is what the person has done in the past is germane here. Demands of high school and college students for "relevance" in education reflect the motivational problems posed at later ages by "always preparing" versus achieving some satisfactions in the here and now. It should also be noted that the emphasis in the matrix on monetary and status rewards may also "turn off" some students and parents.

The CCEM rationale and goals also place teachers and students under great pressure to determine "what the child is and wants". The implications are of an "unfolding" process of something built into the child and failure on the part of teacher and pupil if they do not discover what is blossoming. If such failure leads to low self-esteem, the ultimate objectives will be thwarted.

From a developmental perspective, two underemphases can also be detected in the manual. First, although individual differences in combinations of interests and abilities are stressed, little provision is made for individual differences in rates of development in the various "elements". There seems to be no place for the late bloomer intellectually or for the late maturer with his associated retardation in social interests. Second, the lack of attention to individual differences combine with the pressures noted above to produce the danger that implementation of the goals will promote conformity and mediocrity. Translation of goals into a dictum of "Know thyself and please be realistic" not only leaves little room for the creative person but can also result in perpetuation of a caste system.

A Review of Developmental Program Goals For The Comprehensive Career Education Model

CRITICAL VANTAGE POINT: UTILITY IN CURRICULUM SELECTION

W. James Popham

Too many people give credit even where it isn't due. If no one is harmed by such unwarranted generosity, then we can view benignly those who indiscriminately applaud the undeserving. But when an inadequate educational program can result in serious intellectual injury for many children, then judgmental compassion must be eschewed in favor of judgmental accuracy.

Vantage Point

This analysis is to focus on the CCEM goal matrix with respect to its utility in curriculum selection. The appraisal is based chiefly on the August, 1972, preliminary edition of Developmental Program Goals (CVTE, The Ohio State University) plus a variety of supporting documentation supplied upon request by CVTE staff members.

While the bulk of the analysis will attend to the commissioned task of examining the suitability of the matrix for curriculum selection, the analytic point of departure will be an overall consideration of the goal matrix itself. There are certain properties of the matrix which will clearly influence its applicability for any educational purpose. Accordingly, before turning to an examination of its value for curriculum selection, a commentary on the matrix itself will be undertaken.

The Goal Matrix

The CCEM Goal Matrix has received impressive advance publicity. It is ostensibly to serve as the intellectual framework for the creation of a comprehensive career education curriculum for grades K-12, a curriculum designed for all children and intended to integrate academic and vocational education. Such an ambitious curricular mission will require a first rate intellectual framework. To the extent that the goal matrix provides a shoddy framework, then we can predict a subsequently inferior construction effort.

It is precisely for this reason that reviewers of the matrix cannot afford unwarranted charity. Inadequacies in the goal matrix, the intellectual underpinning of CCEM (Model I), will surely infect the rest of the ambitious Career Education development effort. Even now we find 100 CCEM curriculum units being developed in various parts of the country. The robust development costs for this activity may be largely misdirected in that a key point of departure in unit development is the degree to which the unit goals are related to matrix goals. If the goal matrix is an inadequate framework for such developmental activities, we must say so -- and loudly.

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Not only has an enormous amount of money and personnel energy already gone into the development of the goal matrix, but as a framework document it may [illegible] or corrupt those future CCEM activities which stem from it. The matrix is not an innocuous document which, as so many others of this sort, may be shelved quietly in curriculum library archives. As a cornerstone document, the matrix will have to bear a heavy developmental load. And, unfortunately, this cornerstone appears to be made of pumice instead of granite.

Careful analysis of the CCEM Goal Matrix has led this observer to the opinion that the document is badly conceptualized, badly rationalized, and badly developed. It is, in short, bad.

Indeed, it is so ineptly put together that we cannot dismiss it with a plaudit or two for its good intentions. The result misses the intended mark too far. And, as indicated previously, the matrix is supposed to guide current and future CCEM (Model I) efforts. If used in its present form, that will result in disastrous guidance and a sizeable squandering of federal funds.

Conceptualization. Formulators of the matrix decided to frame their notions at an extremely general level. There are 104 cells (eight elements times 13 grade levels) which contain a series of goal statements formulated at extremely broad levels of specificity, e.g., "The student will become aware of learner-teacher relationships," or "The student will understand how attitude can be expressed through behavior." Although the original matrix was intended to include more explicitly stated performance objectives, the project staff decided last year that the matrix would consist of goal statements rather than performance objectives.[1] In view of the extremely vague nature of the resulting matrix goals, this appears to have been a serious error.

The critical defect in stopping short of more specificity is the classic Rorschach liability: As long as you're dealing with ink blots, perceptions of reality vary widely. And far too many of the goals in the matrix appear to be better suited for projective tests than for inducing lucidity regarding instructional intentions.

Nebulous goals are typically interpreted in too many ways to permit us to get much mileage out of them. As will be documented later in the paper (when the utility of the matrix in curricular selection is under consideration), different people can come up with incredibly divergent interpretations of what matrix goals mean. While a collection of general goals may be acceptable for openers, unless a subsequent effort is made to explicate those goals, confusion rather than clarity will be the likely result.

A concomitant problem stemming from the level of generality selected for the matrix is the resulting deficiency of the structure as a legitimate taxonomy. Any defensible taxonomy must strive toward category delimitations which lead to mutual exclusivity and exhaustiveness. Neither of these characteristics is satisfied by the current version of the matrix.

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[1] Developmental Program Goals for the Comprehensive Career Education Model, Preliminary Edition, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio, August, 1972, p. 15.

An equally serious deficiency is the absence of an analytical hierarchical structure which would permit curriculum designers to derive an instructional sequence from this effort, or at least to assess the extent to which the 104 cells interact with one another.

In the first few paragraphs describing the goal matrix we are informed that ". . . the requirements of the CCEM dictated that a transportable career education model be developed providing an operational definition of career education. The matrix substantially approaches this requirement."[2] After examining the matrix goals, it would seem that the matrix designers may need an operational definition of an operational definition.

Rationale. For a document as potentially influential as the goal matrix, one would expect to encounter a well documented rationale statement which not only describes the reasons for formulating the matrix in a particular fashion, but also details the step-by-step procedures followed in reaching the final formulation. On this score the matrix is particularly deficient, for there is a description presented regarding the development of the matrix which, to uncritical readers, may appear satisfactory. There is even a theoretical base described and four critical hypotheses offered. These items may, to the undiscerning reader, create a patina of intellectual respectability which could incline one to value the matrix more than is justified.

Let's do a little probing. Besides the grade level dimension (K-12), the second dimension of the matrix consists of eight elements, e.g., educational awareness. Where did these eight elements come from? We are told in the introduction[3] to the matrix that this endeavor commenced with an "examination and integration of authoritative theories" in such fields as social development, curriculum development, and taxonomies of educational objectives. (One wonders what a theory of taxonomies of educational objectives would look like). Having consulted such authoritative theories (we can only hope that a nonauthoritative theory did not inadvertently receive attention), then "the eight elements which became part of the matrix structure emerged in July, 1971, as a result of efforts to conceptualize career education". Since the eight elements were born (emerged) under the sign of Leo, we should not be surprised that they display predictable astrological traits such as high aspiration and exorbitant pride.

But quality control was not abandoned. Only a month or so after their birth the eight elements were presented for review to "seven consultants representing various educational specialties." (Although we are not told who these seven judges were, we can at least infer that they did consult and that they did represent various specialties). Thus reassured, we discover that the Magnificent Seven "concluded that the elements were both necessary and sufficient for career education."[4] Thank God.

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[2] Ibid., p. 3.

[3] Ibid., p. 12.

Then there was a good deal of input from six participating LEAs (the field speaks). And they even used a "modified Delphi" process to promote consensus. In the midst of these machinations, it was discovered that "a number of matrix goals tended to repeat across an element at successive grade levels." A new descriptor was needed. Thus, "thirty-two themes emerged" (more birth pangs) to provide an "additional level of specificity within the elements."[5] We are gratified to learn that "the theme-associated matrix cells represent a workable basis for organizing components for career education."[6]

In early 1972 an intriguing development occurred regarding the intended level of specificity for the matrix:

> The original matrix was intended to be a tool extending to the level of performance objectives. In March, 1972, however, it became apparent that the most appropriate level of specificity within the matrix would be at the goal statement level.[7]

Now this is a crucial shift in the conceptualization of the matrix and hence should be self-consciously described. How was it that the most appropriate specificity level "became apparent"? To whom?

We are forced to consult supporting documentation to discern the reason for so basic a modification in strategy. In a recent CVTE staff memorandum,[8] we learn that the current version of the goal matrix "does not include the performance objectives which because of their low quality . . . had to be rewritten. This resulted in the performance objectives becoming part of the actual units

If, as this memorandum asserts, performance objectives were abandoned because they had been badly constructed, is it not deceitful to contend that matrix goal statements represent the "most appropriate level of specificity"? If a sufficient number of high quality performance objectives had been on hand, would a similar decision have been reached? It is this sort of haphazard and misrepresentational rationale upon which the matrix is proffered.

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[4] Ibid., p. 13.
[5] Ibid., p. 15.
[6] Ibid., p. 15.
[7] Ibid., p. 15.
[8] To A.J. Miller from Walter Adams, February 23, 1972.

Even the four critical concepts[9] upon which the matrix is supposedly based are stated in the form of hypotheses which are either untestable or inane. For example, what kind of empirical designs would permit one to test empirically hypothesis number one upon which "the matrix rests"?

> 1. The hypothesis that the eight elements represent a complete picture of what should be infused into contemporary education to achieve career education.

Or, again, who could quarrel with the self-evident nature of the following vacuous hypothesis?

> 3. The hypothesis that career education is attained through the cumulative effort of sequenced and interrelated learning experience.

What form of education, we can ask, is not attained in this manner? These and the foregoing examples may illustrate why the supporting rationale for the goal matrix was found to be completely unacceptable.

Development. The cumbersome and imprecise nature of the actual goals within the matrix is predictable enough, given the level of cognition which preceded their construction. One only has to read carefully any section of the matrix and the sloppiness of the goals will become apparent. For example, can the discerning reader note perhaps a miniscule degree of overlap between the following two grade five goals?[10]

> 2. The student will recognize that feedback influences decision making.
>
> 5. The student will recognize how types of gratification and rewards relate to decision making.

One does not have to search diligently to locate such overlapping or even contradictory goal statements. The tragic conclusion one must draw is that in a development game where rigor of intellect is an indispensible commodity, there were too many ill-equipped players.

Statisticians and researchers have their beloved tables of random numbers which they will use given almost any excuse. It is now possible that career educators have access, via the matrix, to a table of random goals.

In review, then, on the grounds of conceptualization, rationale, and development, the CCEM goal matrix was found to be inadequate. Could such a document prove helpful in curriculum selection? The insightful reader may be able to guess, but let us see.

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[9] Developmental Program Goals, op.cit., p. 12.
[10] Ibid., p. 92.

Curriculum Selection

There are several ways one can think about curriculum selection, based largely on how one defines the term, curriculum. For some educators it means a somewhat loose description of the content covered by an instructional program. More recently, many curriculum specialists are using the term to describe the intended learning outcomes that the school sets out to accomplish. But in the current context, it appears that the CCEM goal matrix is under scrutiny as a device which might aid in the selection of curriculum materials. This interpretation seems particularly apt in view of the major CCEM investment in gathering, refining, and developing curriculum materials for Model I implementation.

Now there are also several ways in which one can consider curriculum materials, and these too must be distinguished. First, we can regard curriculum materials as the classic kinds of standard textbooks learners have been using for decades. Such textbooks and their corollary materials typically are expository in nature, hence derive their worth chiefly from the exposition talents of their writers. Second, a more recent type of curriculum materials are those largely self-instructional products which, in themselves, take primary responsibility for the learners' achieving one or more prespecified performance objectives. Finally, the types of curriculum materials most prominently utilized in the Model I CCEM project are instructional units which provide a series of suggestions to the teacher regarding the design and conduct of an extended series of lessons. While intended to facilitate and focus the teacher's instructional planning, such units must rely heavily on the quality of the teacher's implementation.

The question is: Can the goal matrix be useful in selecting among any of these three types of curriculum materials? In other words, would an educator wishing to promote some of the general aims of the career education program be advantaged by using the matrix in selecting such curriculum materials?

Standard Textbooks. The trick in using the matrix to help one select among standard texts is to match the goals of the matrix and the goals of the textbook. This is akin to lining up a blind date for a pair of protozoa. You just don't know if they're compatible.

We have seen that the goals of the matrix are extremely general, general to the point of vagueness. The goals of most textbooks are equally elusive. Although one can usually infer goals from textbooks, and can even derive performance objectives and related test measures to tap those goals, it is very risky business. When such inferred goals would be subsequently matched with the gleaming generalities in the goal matrix, mismatches would surely be the rule rather than the exception. No, for selecting among standard textbooks the matrix would seem to have little utility.

Self-Instructional Products. Most self-instructional materials are built on the notion that the products themselves must take primary responsibility for the students' learning. Most such materials, fortunately, display rather explicit performance objectives. Now our problem becomes one of matching a precise objective (in the self-instructional product) with a loose goal (in the matrix). This is still a difficult job.

Let's draw upon some of the CCEM curriculum units to illustrate how taxing this task really is. In one of the curriculum units[11] (dealing with forestry and related careers), we see the curriculum developer selecting the following matrix goal as that to which the unit will contribute:

> The student will develop his awareness of out-of-school learning experiences.

Now the performance objective generated to promote this matrix goal is the following:

> The students will identify at least five wood products found in their home, or other out-of-school setting.

Frankly one wonders how identifying wood products in the home will contribute to one's awareness of out-of-school learning experiences. It is possible, of course, that if a student discovers he is standing atop an eight foot ladder made of balsa wood, the resulting collapse might represent a learning experience of some sort. But in general, locating types of wood is hardly congruent with increasing one's awareness of learning experiences. Now if the CCEM curriculum builders themselves have trouble meshing performance objectives and matrix goals, won't most educators encounter similar difficulties?

Instructional Units. It is with respect to the very instructional units that their project is devising that the CCEM staff probably saw the greatest opportunity for using the goal matrix in curriculum selection. Indeed, most of the lessons in the curriculum units are purportedly tied to one or more matrix goals. But it is for this very reason that we must be most attentive to the nature of that tie. Too many educators may unthinkingly assume that if the curriculum unit developers assert a lesson's performance objective as a legitimate operationalization of a matrix goal, then in fact such is the case. From the limited examples this reviewer has examined, that would be a highly unwarranted assumption.

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[11] A Study of Forestry and Related Careers, A Career Education Unit: An Edited Developmental Draft, CCEM/C-3, CVTE, The Ohio State University, November, 1972, p. 22.

For instance, in a unit dealing with the creation of greeting cards,[12] we find some extremely tenuous matches between matrix goals and unit objectives.[13]

Matrix Goal: The student will recognize that basic responsibilities and performance standards are needed for success in a variety of tasks.

Unit Performance Objective: Given three steps necessary for a given task, a student will place them in sequential order with 100% accuracy.

* * *

Matrix Goal: The student will be aware that adequacy of preparation for a school task is related to success and confidence in the performance of the task.

Unit Performance Objective: Given a set of 10 greeting cards, the student will classify the cards into four categories: birthday cards, special cards, get-well cards, and holiday cards with at least 60% accuracy.

Now such irresponsible mismatching of performance objectives and matrix goals is disquieting, not only because we witness shoddy development thinking, but because if this sort of inaccuracy is permitted to exist, then educators may end up using the goal matrix with its pre-keyed[14] instructional units to select units which are quite at variance with a goal's true intent. No, even for selecting CCEM instructional units, because of its grossness the matrix appears to be of little utility.

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[12] In passing, one must register puzzlement over the selection of curriculum topics such as this. Apparently the 100 curriculum units were selected largely because they were "mature," that is, wouldn't require as much work to get ready for dissemination. Employing less expedient criteria, one wonders whether a unit on the creation of greeting cards would be included in the top 100 (or 500) units most badly needed in career education.

[13] How Are Greeting Cards Created?, A Career Education Unit: An Education Developmental Draft, CCEM/C-18, CVTE, The Ohio State University, November, 1972.

Getting to Mars

In retrospect, the CCEM goal matrix represents an ambitious effort to provide an array of instructional intentions which could be profitably employed in career education. It was far too ambitious. One suspects that this project represents the classic syndrome of the federal government's providing immense financial resources while failing to recognize that it takes time -- a long time -- to assemble a sufficiently large talent pool to accomplish the intended tasks. It appears that the CCEM project staff concerned with devising the goal matrix was embarking on a tremendous effort sans requisite talent. As a result, particularly from the perspective of utility in curriculum selection (but by no means limited to that arena) the matrix has almost no value.

What disturbs one perhaps more than any deficiencies in the goal matrix itself is the possibility that this sample of work may reflect the quality of the entire Career Education enterprise. For such a pivotal document to reach this stage of development without having been either salvaged or squashed does not speak well for the entire CCEM operation. If the matrix project is representative of the level of intellect operative in the overall CCEM endeavor, then career education may indeed have a short career.

When a group embarks on an excessively ambitious project we should not automatically applaud their zeal. Wisdom may dictate tackling more modest but manageable missions. Before our astronauts tried to get to the moon, they first aimed for extended earth orbit.

It appears that the CVTE people at Ohio State were setting their sights on getting to Mars, and in a couple of years at that. Maybe they should have first tried to reach Cleveland.

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[14] Such keying of matrix goals to curriculum units will be far too tempting to resist for the CCEM project staff.

A Review of Developmental Program Goals For
The Comprehensive Career Education Model

CRITICAL VANTAGE POINT: UTILITY IN CURRICULUM DEVELOPMENT

Joseph J. Schwab

As guides to curriculum development, statements of goal, as usually formulated and employed, exhibit some seven critical weaknesses. We shall be concerned here with the two of the seven which are conspicuous in the Comprehensive Career Education Model.

Weakness 1: Fuzzy Sets Mistaken

Statements of aims, goals, and objectives are not merely educational and to call them so is misleading to both maker and user. Statements of goal are intended to guide education. They assume that the realization of their purport can be achieved through education. They are sometimes specified to educational acts and processes. But to call them only educational objectives is to ignore their origins and to encourage failure to take account of the characteristics imparted to them by their origins, characteristics which affect them in their functioning as guides to curriculum development.

In many cases, statements of goals or objectives originate primarily in values of the planning group, values possessed in terms much broader than education, broad enough to include ways in which the planning group prefers that men shall be, act, undergo. Values of such breadth exhibit two characteristics which concern us here.

First, they are poorly understood by the persons who possess them. These values guide the choices, the selected acts and welcomed undergoing of those who possess them, but they are not ideas which are clear in either their details or their consequences to those whom they guide. Hence, statements of them by their possessors, especially short statements, telegraphic statements, are likely to be seriously incomplete, even wrong. Consequently, even if they be apparently clear to those charged to use them as guides to curriculum development, and even if these persons be truly guided by the manifest meanings of the statements, the curriculum which results will not necessarily be the curriculum wanted by the planners. It may not lead to the propensities, competences, and behavior desired.

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Such statements of objectives are, in metaphor, not the essence of the behaviors desired but hat-checks standing, at best, only for poorly conceived kinds of hats and standing occasionally for the wrong, poorly conceived kind of hat. They are ambiguous codes for fuzzy sets and sometimes for unintended fuzzy sets.

In other cases, statements of goal have their primary origin in efforts by planners to elaborate the values of someone else, and the starting point for the planners is often no more than a slogan or aphorism. Even when the originating person is present for extended interview and questioning, thus supplying more than aphorism or slogan, the problem of deciphering broad values persists, and in exacerbated form. The probable slippage between stated objectives and curriculum development also persists in exacerbated form.

In still other cases, statements of goal have their primary origin in technical assignments, "scientific" efforts to identify the components entailed in a central idea and to specify these details to education. In such cases, the problem of deciphering broad values remains, though in the background, and a further problem becomes conspicuous. The newly conspicuous problem arises from the fact that the details involved in a central idea are not merely logical entailments. Their entailment is occasioned by facts and interpretations of facts. These facts come mainly from the behavioral sciences--sociology, psychology, anthropology, personality theory, economics, and so on. Each of these sciences affords scope for application of numerous principles of enquiry, thus generating, not one body of knowledge in each science, but several, each incomplete. Moreover, these sciences split the whole of human affairs into separated parts, each part treated differently.[1] Consequently, the task of using the fruits of the behavioral sciences to resolve a complex idea into its components is an exceedingly complex one. It is a problem of discriminating, among the several bodies of knowledge each field contains, that one, or those parts of each, most appropriate to the problem in hand. It involves the further problem of joining the selected bits from one field to the bits selected from the other fields. (It also involves, of course, taking care to use the relevant behavioral sciences, rather than relying on merely semantic and logical entailments or exclusively on "common sense.")

These tasks--the deciphering of broad values, the bringing to bear of appropriately selected and joined parts of the behavioral sciences--are hard to do well. When they are not done well, statements of educational goals which emerge exhibit crippling faults: 1) They omit or misrepresent aspects of the subject matter with which they deal (e.g., self-awareness, decision making, economics), 2) They call for behaviors inappropriate to the age-grade level to which they are applied, 3) Where sequences are involved, steps are overlooked or an entire sequence may be lost, 4) Crucial terms are undefined, and 5) Lesser terms are vague and, consequently, some goal statements approach meaninglessness.

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[1] For an extended treatment of the character of the behavioral sciences in relation to curriculum, see my "The Practical 2: Eclectic Arts, " School Review, 79, No. 4 (1971).

Teachers will often struggle to produce curricular materials and processes from goal statements so marred, but the likely outcomes are not promising. If lack of meaning, lack of definition, and vagueness are great, the debate and conflict over interpretation may be so frustrating that the discussion ends without curricular issue. There may be curricular issue but one which arises from goals set by the teachers themselves to replace those which defy efforts to reach interpretive consensus. If the faults of the goal statements are mainly ones of substance or appropriateness to age-grade, there may well be curricular issue, but the curriculum which results is likely to be miseducative or non-educative to a degree, or at points, of considerable importance. None of these likelihoods can be called curricular development in any defensible sense.

I find the enumerated faults sufficiently conspicuous in the Comprehensive Career Education Model to be disturbing, and proceed to examples. Since any one goal statement is partly defined by its context of related statements, I have drawn examples mainly from one set, the set pertaining to decision making.

The mission statements on decision making provide an instance of failure of sequence. It consists of an omission of a possibility for education which is especially peculiar in the light of the appeal in the document to Bruner's emphasis on readiness as a function of education as well as of physiological growth (p. 10).

I read in the Kindergarten statement that, "the student becomes aware of the kinds of media that interest him." In Grade 1, I read that he "becomes aware of the relationship between his interests and making choices." In Grade 2, I read the "having interests" necessitates making choices. The statements on Grade 3 and 4 are silent on the matter of interests. At Grade 5, "making decisions is necessary to satisfy personal interests." In Grade 6, the student understands how personal interests influence career decisions, and in Grade 7 how personal values (which either include interests or are included in them) influence decision making. Interests, in brief, are possessed (from Kindergarten), are related to decision, and are understood to do so, but nowhere is there a word about enlarging the child's range of interests, or modifying those he possesses. Yet seven years of education have passed, seven of the most formative years. Has the matter of educating interests been entirely overlooked or only postponed? If postponed, why? I read on.

At Grade 8, the student "becomes aware that establishing priorities among his values requires making decisions." Perhaps, at last, this is it. Interests may not be modified or added to by education, but at least priorities among them are established. But does "establish" mean what I take it to mean? Does the student, indeed, examine his values and impose upon them an order of priority? Or does "establish" mean realization, i.e., that *if* the priority scale already existing among his values is to find its counterpart in existence, decisions will be necessary in the light of that scale? Grade 9 is silent. Grade 10 may answer my last question for the student "understands that personal goals involve decisions," and it is hard to parse this statement other than by accepting the goals as fixed and as exercising causal efficacy. In Grades 11 and 12, it is clear that students' goals are taken as fixed and by this time they probably are.

Is this treatment of values-goals-interests so incorrigible, ineducable, and fixed an oversight due to inadequate knowledge (or use of it) about the origins and malleability of such things? Or does it arise tacitly out of the currently popular cult view that we are born with our interests-values-goals, and that they constitute an inalienable uniqueness, with which it is forbidden to meddle? I do not know.

I am aware, however, that the Model insists that the mission statements are summary, and that the most appropriate level of specificity is the goal statements themselves (*Goals*, P. 15). turn to these. I find that the goal statements for Kindergarten and Grades 1 through 12 indicate that the mission statements are faithful summaries. The student continues to have, become aware of, and analyze his interests-values-goals. But at no point do I find the student modifying or being modified in these respects. In Grade 4 he identifies and states personal goals. He recognizes, too, that gratification is associated with decision making, and in Grade 5 that types of gratification and rewards relate to decision making. In Grade 6 he examines the role of feelings. In Grade 8 he again understands and recognizes. In Grade 9, at last, there is recognition of the influence of other people, but that influence is something the student analyzes, not something that schools, teachers, and schooling are supposed to exercise on the interests, goals, and values of the student. Grades 10, 11, 12 again emphasize student recognition, exploration, and analysis of what exists in these respects but say no more than do the mission statements about their growth or change.

But perhaps this whole matter is treated elsewhere. The "self-awareness" cluster is a likely candidate. And, indeed, in Grade 7 we find reference to *emerging* values. However, they "emerge They are not educed or induced. And in the preceding grades the student becomes aware of the identifies again, but again no reference to directed change or enlargement of interests. Ironically enough, emphasis on the student's awareness of the influence of other people, of social roles, and of group memberships is strong; but again no suggestion that the school, its teachers, and its environment be employed as interest-enlarging influences.

The decision making section affords another example of opportunity dropped through ignorance or oversight. Under Grade 3, Theme 22, goal #2, I read that, "the student will identify alternative ways to accomplish goals." My eyes lit up; here was an excellent start which would doubtless follow through in subsequent grades to matters of varying cost of alternative ways and then to estimates of cost-benefit ratios. This would become, furthermore, an ingenious way of sneaking up on the matter of being critical of one's values and undertaking their alteration-- since "benefits" in concrete cases confront us with our values in a new form, as material gains or losses and not as worded statements or vague feelings of desire. But I am disappointed. The Grade 3 entry is the last we hear of alternative ways.

A related, odd sequencing and loss of sequence begins at Grade 3. "The student becomes aware of the fact that decisions involve taking risks" (Theme 22, goal #1). In Grade 4, "the student will recognize that gratification is associated with decision making" (22-4). Let me suppose, for the moment, that this latter statement means that the actions undertaken to carry out a decision have results which are gratifying. If so, why are risk and gratification separated by a year? And why is risk put first? Further, why is uncertainty, the more potent determinant associated with decision and action, omitted? Further, why is urgency omitted, the factor which so often precludes the gathering and evaluation of all the related facts we would like and which would, except for urgency, be available?

The instances of questionable mastery of the subject of decision making cited above are instances of omission. Grades 2 and 8 provide instances of positive error which are decidedly Puritan, punitive, and misplaced. In Grade 2, "The student will become aware that he is responsible for his goals" (22-4). In Grade 8, he "will recognize that he is responsible for the outcomes of his decisions." Did the child in the second grade, then, have no parents with aspirations or lack of them, no neighbors, no social-ethnic group, no peers? Can he, at the age of seven or thereabouts, be held so responsible (as indeed, adults may be and are)? For the student who has reached Grade 8, have chance and uncertainty played no role in the outcome of his decisions? And is age 13 the time to burden a child with a guilt he does not wholly deserve?

Another questionable sequence begins in Grade 4 where a child of about nine years is to be told that a decision can precipitate a chain reaction (22-7). In Grade 6, he learns that previous decisions affect present and future decisions (22-5). This is asserted again for the next grade (22-3).

From Grades 4 through 7, then, Nemesis dogs his trail. Only in Grade 9 is this clutch of fate loosened by conveying to the student that "decisions can be tentative and reversible" (22-4) and even here, the wording is "decision" and not consequences of decision. Mercy thereafter continues, however, for in Grade 10, the student understands that decision making is flexible and that decisions may need to be changed. Fate closes in again, however, in Grade 11: "The student will understand that the consequences of a decision can affect his life pattern."

Surely something could have been done to juxtapose immediately these two factors--fate and freedom--wherever they arose.

I turn now to instances of failure to define crucial terms. It should be noted how often in these instances, the failure to define is covered by a rhetorical treatment whose effect, intentional or not, is to give the impression that no definition is needed, that the matter ought to be well-known. In most such instances, the terms in question are not well-known and, in fact, are matters of much uncertainty among those most knowledgeable about the decision making process. (I shall cite each of the numerous instances very briefly.)

In Grade 1, "The student will become aware of the relationship between reasoning and making choices" (22-4). What is the relationship? We are not told. Is the reasoning referred to of the same order as that used in science, or that used in logical inference or some other? We are not told. (Add the question whether Grade 1 is the place to talk about being aware of the relationship of reasoning, that most complex and vexed of subjects, to choice, or, for that matter, to anything else.)

Similarly, in Grade 4 we are referred to the steps of the decision making process (22-2), to the characteristics of decision making situations (22-3), and to the types of stress that influence decision (22-11). In the same grade, we have the influence of personal goals and values (22-8) and the influence of personal characteristics (22-9), but these are of a different and lesser order of undefinition; they are matters of concrete actuality, not of theory; they vary from individual to individual--unless, of course, the formulators of these statements had in mind influences which ought to prevail uniformly.

In Grade 5, we are told that the student will evaluate the results of his decisions, but we are given no hint of the standards which measure the quality of a decision. Are they the desirability of the consequences of decision? Are they the coincidence of intended and actual outcomes? Are they adhesion to canons governing the decision making process? For Grade 9, the point is reiterated in another wording:

"The student will evaluate the quality of his decision making." (See also Grade 8, 22-2)

So much, then, for failures to define crucial terms. Fewer instances of vagueness and lesser ambiguities should suffice. My favorite is 22-4 for Grade 12: "The student will understand the relativity of importance among influences on decision." Did the author mean that questions of importance are matters of individual taste or did he mean that some factors are more or less important (have greater or lesser determinative effect) than others?

For Grade 1, goal statements 1 and 3 (Theme 22) read as follows. No. 1, "The Student will recognize that he has a choice in some situations." No. 3, "The student will become aware of the relationship of having alternatives and making choices." The fact that both statements exist in close proximity, for the same grade, and the same theme, persuade me that they are intended to mean different things. I cannot find the difference. That some situations afford choice seems to me equivalent to some situations affording alternatives, or am I to suppose that at this early age, one may recognize that choice is possible in some situations but fail to connect the availability of choice to the availability of alternatives? Or am I to suppose that No. 1 means to say that the child discovers that not all situations afford choice, while No. 3 means that choices are limited to the available alternatives? (e.g., "Stop the World. I want to get off.")

Item 22-5 for Grade 6 affords a more serious instance. It refers to the effect of "previous decisions" on "present and future decisions." Do the authors mean decisions? That is, do they intend the student to become aware of the extent to which the very act of making decisions of a certain order may condition us to similar or different decisions in later situations which afford them? Or do the authors mean that the consequences of earlier decisions affect the directions we seek in later moments of choice? The same questions may apply to item 22-2 of Grade 5 in which "feedback influences decision making." Feedback from what? Acts of decision, consequences of decisions or both?

One of the vaguest repeated statements under decision-making (see Grade 4, 22-6, e.g.) reads, "The student will recognize cause and effect relationships in decisions." What is the teacher-curriculum maker to make of this? That one act of decision may affect another act of decision? That consequences of one act of decision may affect another act of deciding? That certain actions entailed in certain choices generally have certain effects (e.g., pressing the accelerator makes the car go faster; making the car go faster increases stopping time, and so on)? Quite different curriculum bits are entailed in the meaning one chooses to make of the statement.

To conclude this budget of instances, I suggest (without specific citations) that all statements containing the word "responsible" and its correlatives be examined with great care; that the entire notion of self-awareness be rethought, and its specific meaning in each of its many uses be spelled out; that the notion of internalization in relation to values be restudied and, again, its specific and varying meanings spelled out.

I have made earlier reference to "responsible." The question is whether its sense has been adequately conceived by the authors of the Career Model: Whether the distinctions between "responsible" as being liable to public blame or private shame, "responsible" as conscious and conscientious adhesion to rules of a game, "responsible" as involving effects on others of decisions made for one's self, and "responsible" as being sole or major determinant of events, have been made. The problem is then to formulate statements involving "responsibility" in ways which make clear which meaning is intended.

The notion of self-awareness in many of the goal statements under that heading demands attention to the extent that its appearances in statements appear to demand of a few hours of schooling, degrees and kinds of self-awareness that intensive psychotherapy would be hard put to deliver. See, for example, the mission statement for Grade 6, "The student recognizes his cognitive, psychomotor and affective capabilities." In close connection with the notion of self-awareness, the heavy reliance on the notion of "roles" should be reexamined and rethought, and the relationship between the playing of roles (serving in groups, being assimilated to groups, being coopted by groups) and the notion of uniqueness be considered.

The problem involved in the word "internalization" is the problem of determining whether it is intended to have only the Freudian meaning in the statements in which it appears or other meanings; if other meanings, what are they and which meaning is intended in each of the several and different statements which contain the word? Often, "internalization" is tied to values, a tie which relates what is intended by "internalization" to the problems concerning self-awareness.

A second characteristic of broad values--in relation especially to the American culture--is that they are not widely shared. We are indeed a pluralistic culture. Teachers and curriculum makers as a group--if they have enough homogeneity to constitute a group--are likely to have a value set which differs significantly from that of the planners. Most certainly, different groups of teachers and curriculum makers--urban and rural, suburban and inner city; Protestant, Catholic, and Jew, Eastern European, Scot, and South Italian--will owe allegiance to different sets of values.

The confrontation of these pluralities with ambiguous pointers to fuzzy sets has frustrating consequences. The teachers and curriculum makers may have the best will in the world--intend to be guided by the stated objectives and not by their own educational predilections. Nevertheless, they are unlikely to produce curriculums which correspond to the wants of the planning group. For the fuzziness of the sets to which the stated objectives point infects the statements. Most of them come to possess a special equivocality which permit them to be read in a dozen different ways.

This special equivocality is more than a merely verbal one, curable by wise choice of words and adequate qualifications. It derives from the locus of the fuzzy sets from which the statements arise and from the intended locus of their purport. In origin, the statements are expressions of preferences and preferences are internal states. The purports of the statements involve the instillation in students of one inner experience or state as against another: propensities of those to be taught, modes of satisfaction and pleasure to be experienced by the taught, competences to be acquired by the taught, and, again, preferences on the part of the taught.

In short, both the subjective and the objective referents of many statements of goal are largely private referents, not public ones. This means that the essential thirdness which confers meaning on verbal communication does not exist for statements of educational objectives in a fashion which permits speaker and hearer, writer and reader to point and look and thereby clarify the verbal communications one to the other. The hearer and reader can look only into himself in search of the referents intended by speaker and writer. What the hearer or reader finds there may not correspond very well to what was inside the speaker or writer. Yet it is what hearer and reader find inside themselves which they try to embody in curriculums ostensibly guided by stated objectives--and nothing more.

Something more, other and complementary modes of communication, can be added to the inadequate communications afforded by goal statements. Two especially would be easy to add to the Comprehensive Career Education Model in its present format. One would consist of brief treatises (10-20 well-phrased, printed pages) on each of the eight elements which constitute the base of the Model. Each such treatise would spell out what is and is not intended by the words used in and about the element and provide a brief schema of the organized knowledge or speculation which underlies it. Each treatise would be shorter or longer as the subject is judged to be more or less well-known to the curriculum makers who will use the model and to the degree to which the subject of each treatise is simple or complex and well-known by its investigations or still subject to much difference of opinion.

Such an addition would not only improve communication between model builder and curriculum maker, it would also profit the model maker. It would profit him by confronting him with the problem of estimating the degree of his own mastery of the subject under discussion, by affording an occasion for his clarifying and adding to that mastery, and by providing him a basis for identifying and correcting poorly phrased and incomplete goal statements.

The second complementary mode of communication which could easily be added to the Model consists of curricular bits (a lesson-plan, a description or transcript of a few minutes of instruction) which indicate, at crucial places in the matrix, what is and what is not intended by the goal statement under treatment. It is important that negative as well as positive instances be used, and as often as possible in tandem. To the extent that one says, in effect, "this is what is intended--; whereas the following is not," to that extent one is the more likely to raise to consciousness in the reader the distinction between what he takes the goal-statements language to mean and what the author intended to mean.

Weakness 2: Non-discrimination of the Matter

I begin with an image from the plastic arts. One cannot draw the same kind of line with a pencil, a pen, a brush; and different kinds of line enclose space to different effect. One cannot shape metal, stone, and wood in the same fashion, nor can a given object be imaged in the same way to the same effect in these different media. One does not merely impose a form on any given matter. The matter affects the form imposed. The good artist, consequently, takes full account of the medium, the matter, which he shapes.

The same should hold true in education. Goal statements are brief descriptions of forms to be imposed on children as a matter. (We once, indeed, spoke of molding mind and character, bending a twig in the way it should grow and so on.) When the goal statement is unqualified, it suggests a "universal" form to be imposed upon all children alike, regardless of differences which may exist among them, regardless, therefore, of ways in which each form should be adapted to its different matters and regardless of the possibility that to some children under some conditions a given form may be wholly inappropriate. Yet children do differ, through differences in native endowment and differences in early nurture, in ways which are material to how and to what specific form they should and can be shaped by education.

Selection and formulation of goal statements ought to take account of such differences; indeed, it has a special obligation so to act, since much harm rather than good, may otherwise be done. In making choices of goals for heterogeneous groups, the special obligation is to those areas of pertinent circumstance which vary or are likely to vary from group to group. The proposer of goals ought to identify these areas and the directions which difference may go. He ought to discern some of the ways in which his selected goals ought to be modified or qualified in application. The special obligation in the formulation of goals is to communicate some of the considerations which ought to be taken into account in translating the goal statement into practice and suggesting some of the ways in which the goal itself can be modified in the light of these considerations. The special obligation is especially to see to it that goal statements are not mistaken for "directives" instead of directions. Little such specification obtains in the Comprehensive Career Education Model.

A Review of Developmental Program Goals For The Comprehensive Career Education Model

CRITICAL VANTAGE POINT: UTILITY IN CURRICULUM DEVELOPMENT

Elliot W. Eisner

I take it as my task in this review to provide a set of remarks that will enable prospective users of the document and the National Institute of Education's professional staff to understand its assets and limitations for curriculum development. My remarks will focus on each of the two major sections of the document: that section dealing with the presentation of the rationale, the description of the elements in the matrix, and the history of its development, and the second section, which presents the matrix itself. In addition, I will describe the types of task that a curriculum development team would need to undertake if the matrix is to be used to develop career education curriculum.

Perhaps the most significant problem one encounters in reading the first section of the document is the lack of clarity concerning the central concept around which the work is based. That concept is, of course, "Career Education". Although in various places in the first section of the document one gets the impression that career education refers to preparation for the world of work, in other parts of the first section career education is used in such a way as to suggest a much broader set of goals, goals which refer to the development of avocational interests and general intellectual skills which are not specifically related to the world of work. Indeed, the document points out that "career education" is not the same as "vocational education" but it does not provide the reader with a clear, well argued conception of what the differences are and in what way career education differs from what is now provided in school programs.

For example, it may be that career education is conceived of as a form of educational experience that includes skills, attitudes, and understandings that overlap in some significant way with the skills, attitudes, and understandings that are, in general, sought by most current educational programs. If the overlap between these outcomes is complete, then clearly there is nothing that schools do now which would be altered by the introduction of career education. Isomorphism between the skills, attitudes, and understandings in career education and general education would make one of them redundant.

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Clearly this is not the position that the writers of the document have taken. They imply that career education has something distinctive to provide but they do not specify what those *distinctive* contributions are, and what proportion of the goals and tasks of career education are not now being provided for in ongoing school programs.

To do this would require a deeper level of analysis of the concept "career education" than is available in the document. It is not clear, for example, whether the heart of career education is to provide vocational guidance to students, to develop certain habits of mind that will make them economically productive, whether it is concerned with helping students learn to reflect critically on life as their major career, or whether career education is to provide an exploration of various occupations so that students will be better able to select ones closest to their interests and aptitudes.

The lack of clarity of the meaning of career education leaves the reader with the uneasy feeling that the writers of the document did not themselves have a great deal of clarity concerning the meaning of the concept. And without clarity of the central concept one has a house, as it were, built upon straw.

Clarification of the concept career education is, however, only the first step in a program as potentially influential as this one. The second step, once the first one has been taken, is to argue for the inclusion of career education (assuming that it is not now being adequately provided in school programs) in school curricula. It is clear that schools, like most social institutions, have limited resources. To spend money, time, and energy on one thing means that other things on which those resources could be expended are going to be neglected. Now it might be perfectly justifiable to alter priorities within school curricula, but such an alteration should, I believe, not be made simply by the interjection of a new element but by first appraising and assessing the potential gains of the new element in relation to the contributions being made by existing elements in the curriculum. To do this, at the very least, some reasons for career education need to be provided and its case argued. I am fully aware that precise quantitative methods cannot now be confidently used to measure the benefits and costs of existing programs in relation to the anticipated benefits of career education curriculum, but nevertheless, judgments can be made, and I would argue that judgments are likely to be better informed if a rationale for a program could be provided. The "rationale" that is provided in the document is not an argument, but a listing of goals and a description of "elements" used to generate the matrix. The type of rationale I am urging is one that combines both a normative conception of desirable educational ends and practice and the necessary empirical data that provide factual support for the values espoused. After having read such a rationale, an intelligent reader should come away informed about the empirical state of affairs out of which the need for career education emerges and a normative argument that is sufficiently cogent to justif taking action to create such a program within schools. Neither of these is provided for in the document.

Another difficulty that confronts the reader when he reads the first section of the document is the ambiguity regarding the nature of a career education curriculum. It is not clear whether career education is conceived of as an independent "subject matter" curriculum, something like driver education, biology, or ecological studies, or whether career education is to be integrated into existing subject matter curricula. For example, is the major task of a curriculum team working in a local school district to find places within the variety of courses now offered to "infuse" (this is the word used in the document) career education content? Is it the task of such a team to develop a systematically organized, sequential curriculum in career education? Is it the task of such a team to do both? What are the assets and liabilities of each approach? What should a school district consider in deciding which tack to take with respect to curriculum development in career education? These considerations will, of course, be fundamental to any effort to use the document, but at present the document does not even recognize the existence of such considerations, let alone provide a set of intellectual tools that would be useful in deciding how to cope with them. In short, if the matrix is to be used to develop curriculum, some prior decisions will need to be made about the character and status of the curriculum; are we talking about an independent program or one in which various "career" elements are infused into existing curricula? If local districts are to decide, what should they consider when making such a decision?

Furthermore, there is some implication (see paragraph three, page two) that career education as a concept might be used to restructure and, in effect, redefine the bases and form of all existing curricula. This suggests that the conception of career education is so radical or rests upon assumptions so radical that it will require an overhaul of school programs so that they are instrumental to the realization of more adequate educational goals. Surely the intimation of a position so iconoclastic requires a rationale sufficiently persuasive to justify the attempt to bring about such fundamental change in school programs. Nothing near such a rationale is now provided.

Also related to the lack of clarity regarding the conception of "career education" and the character of a career education curriculum is the lack of clarity concerning the meaning of a comprehensive career education model.

In the philosophy of the social sciences the term "model" has a fairly distinct meaning, one which differentiates it from theory. But what is the meaning of "model" in the context of career education? Is it a description of the parts that constitute career education curricula? Is it the arrangements of the parts and their interaction? Is it a description of the grounds for including the elements that have been identified? I recognize that the function of the document is to identify the goals of a comprehensive career education model and is not therefore concerned primarily with an explication of other aspects of the "model." Nevertheless, it would be helpful to a staff in a school district to know what that model consists of and, therefore, be in a better position to understand how the goals function within such a model.

There is in the beginning portions of section one of the document some discussion of the Comprehensive Career Education Model. The writers talk about "the requirements of the CCEM dictated that a transportable career education model be developed..." This is another way of saying that the model required that the model be transportable. If this is not a tautology, it is very close to one. And in any case, what a meaning of the phrase "a transportable career education model" is, is not particularly clear. If it means that educators working in various school districts will find the model useful, this should have been said in a straightforward way. If the word "transportable" is meant to be profound or subtle, its profundity and subtlety fail to come through.

In raising questions about the use of such phrases and others such as "the delivery of career education" I am not trying to engage in nit-picking. I consider the lack of clarity of the central concepts and the use of tautological phrases and military or engineering metaphors (delivery of career education) often symptomatic of conceptual poverty. When this occurs it is not unusual to find attempts to substitute the language of engineering and systems analysis as cover-up tactics. Language is used to cloak thought. The present document does not employ as many of such devices as I have read in other documents, but it does fall far short of the lucidity that to me is necessary for sound intellectual work and which is doubly important when such work has the potential to significantly influence educational policy.

As the first section of the document proceeds there is mention made of "career education theory." The document reads "Career education theory consists essentially of merging career and educational development theory. The career education concept is a forceful assertion that education be considered a part of the overall career development process."

Analysis of this paragraph reveals the following: First, career education theory is a merger of career education theory and educational development theory. What can such a proposition possibly mean? How can something be both itself and a merger of something besides itself? Second, the second sentence asserts that "the career education concept is a forceful assertion..." Concepts are not propositions. How can they assert something? Third, the last half of the second sentence in the paragraph proposes that education is to be conceived as a part of career development. This implies that career development is the whole of which education is a part. I suppose this assertion can be sustained if one argues for a conception of "career" that is extremely broad. But such a conception has not been argued in the document and therefore education - itself a broad concept - is by implication reduced to a handmaiden of "the overall career development process."

I do not believe that it is necessary to critique each paragraph in the first section of the document to make the point that I have tried to make in the preceeding remarks: The document suffers from both a lack of breadth with respect to the grounding of career education within a normative conception of education and from a lack of clarity of the central concept it employs, career education. These characteristics do not breed confidence that those who prepared the document had sufficient critical skill to examine their own work adequately. It also tends to undermine the reader's confidence in the material that follows the first section.

Section two of the document describes the mission statements for each of the eight elements that have been identified as defining career education (pages 18-43). This section also includes the goals that occupy the cells of the matrix (pages 44-163).

The mission statements are general summary statements that attempt to distill the major objectives, by grade level, for each of the eight elements that have been identified. They are, I believe, useful for enabling educators to obtain a general sense of what is being emphasized by grade in a career education program. Because of their generality, which I do not consider a vice, the mission statements are liable to wide differences in interpretation. However, highly specific mission statements would lose the "general feel" of what is being emphasized and, in addition, would yield an extraordinarily large number of statements which could interfere with, rather than contribute to, understanding.

Although the mission statements are arrayed across grade levels, because they are general, it is difficult to know whether they are viewed as necessarily sequential. Does attention to the content of the mission statement at grade eight require or presuppose attention to the statement provided for grade seven? Despite these caveats, I find the mission statements useful as a basis for generating the goal statements that follow from them.

A major aspect of the document is the material found from pages 44 to 163. This section consists of the themes for each element and the goal statements for each of them. Altogether there are 1,303 goal statements presented. It is these goal statements that are intended to provide the basis for formulating specific objectives for career education curricula.

Aside from an analysis and critique of the language and argument used in the document, the most important consideration deals with the question: Can the document be used to develop curricula? The answer to that question is yes; but that answer needs to be qualified in several ways.

First, the objectives generated for each cell of the matrix, while general, can be used by a curriculum development team to begin to articulate specific learning opportunities related to those goals. These goals do provide a very broad set of parameters which require - as any set of objectives require - an act of imagination on the part of curriculum developers. This act of imagination consists of formulating resources, cues, settings, and materials that are deemed (1) related in some psychological way to the objective or goal embraced, and (2) useful in facilitating student learning towards that goal. No objective or goal, by itself, prescribes learning opportunities. And there is no set of transformation rules or curriculum logic that enables one unambiguously to determine whether such opportunities are consistent with the goal or whether they will be effective for children in the classroom. All that can be done at present is to judge, to appraise, and to make some inferences about the anticipated effectiveness of a learning opportunity and its relationship to an objective or goal. In short, there is no logic for checking out such judgments in the way in which logic can be applied to determine the consistency between premises and conclusions.

I dwell on this point because any set of goals or objectives - behavioral, performance, or otherwise - requires the exercise of judgment on the part of those who develop curricula. The major question is not whether the objective or goal guarantees the generation of effective learning opportunities, but whether the objective or goal can be used to develop effective learning opportunities. Is sufficient guidance provided by the goal statement? This, it seems to me, is the relevant question.

That question, however, can only be answered contextually. How much guidance is necessary depends in large part on the intelligence, experience, and skill of the curriculum development team. Given a team with high levels of intelligence, good experience in curriculum development, and skill in developing learning opportunities that are attractive to students and teachers, I believe the goal statements in the matrix would be useful.

To develop effective curriculum a number of other tasks would need attention. It would be important for school personnel to determine for which students what types of goals and learning opportunities were necessary and appropriate, given some articulated conception of career education. It might be that a large portion of what constitutes reasonable goals might already have been achieved by a portion of the students in a given school district, school, or class. It does not seem reasonable to me to bring coal to Newcastle. Some assessment of where students are with respect to the goals of career education seems necessary.

It will also be necessary to develop physical materials that can be used by both teachers and students in class that will provide the type of experience that is consistent with the goals of career education. Printed syllabi are simply insufficient. The abundance of such unused syllabi in the bottom desk drawer, on the book shelf, and in the closet provides ample evidence that more than written materials will need to be created if a career education curriculum, or components of a curriculum, are to be used. Games, filmstrips, video tapes, and other types of material will need to be produced.

Even the existence of attractive materials to accompany a syllabus will not insure the effective and informed use of such materials. Teachers need to learn how to use such materials and they need to have a hand in their creation. School districts that wish to use the document, especially the goals in the matrix, will need to provide consultation, in-service training, and supportive supervision. This means that school districts will need to have the fiscal support necessary for providing such resources within their district. The likelihood that materials will be used effectively without such support is, in my view, small.

Even with the availability of supervision, in-service training, and consultation, no district should assume that the materials will be ready for general dissemination within a district without extensive formative evaluation and, as a consequence, the necessary revision of the materials. It will be important to develop an evaluation team consisting, in part, of people who have not had a hand in the development of the materials and who can provide as clear-headed and objective an appraisal as possible. I would imagine that a school district wishing to develop effective career education materials should plan on a minimum of a three year period for their development, including initial revisions, and should also be prepared to provide the necessary supervision to sustain their effective use after this period. Without such a commitment, the investment in career education curriculum is likely to be a waste of time, energy, and money.

I have not in the critique addressed myself to a number of questions that any curriculum reform program ought to consider. I have not examined the question of whether attention to the topic proposed is worthwhile to begin with. What values underly it, and for whom, if anyone, is it valuable considering other uses of resources? I have not addressed myself to these questions because I believe they will be attended to by others who review the document.

As I have already indicated, I do believe the goal statements have some utility, provided the people who are to develop the curriculum have the necessary expertise. At the same time, the conceptual work concerning the meaning and place of career education that I believe should have been done is virtually absent from the document. I would hope that this work would be completed before the material is made available for general consumption.

A Review of Developmental Program Goals For The Comprehensive Career Education Model

CRITICAL VANTAGE POINT: ACCEPTABILITY TO THE PROFESSION AND TO THE PUBLIC

Roald F. Campbell

I find this a difficult assignment. For years I have believed that there ought to be a closer relationship between the school and the world of work. Yet, when I was confronted with the Comprehensive Career Education matrix, I found much that required reexamination. I have further difficulty with the scope of this assignment. The word "acceptability" has many meanings. Moreover, neither the profession nor the public is a monolithic group.

Acceptability can be construed in at least three ways. First, there is a kind of band wagon acceptability; it is the fashion to get in line. I have to reject this approach to the term. Second, there is an intellectual approach which assumes that the concepts behind the matrix are understood, and they are found compatible to one's own thinking. I find this rational approach more attractive than the band wagon, but I suspect even more was implied by this assignment. Perhaps the approach intended has to do with implementation. In short, will teachers implement the ideas supporting the matrix, will students respond to the kind of curriculum implied by it, and will parents and other adults support such a program? I assume we need answers to these operational questions.

As one thinks of the profession, different organizational rubrics come to mind. One might deal with institutional categories and think of persons who work in schools, in colleges and universitites, and in other organizations. Another set of categories has to do with roles: for instance, teachers, administrators, and research and development persons. Even these role categories require subdivision. There are elementary, secondary, and vocational teachers, to say nothing about teachers by content areas. There are elementary principals, secondary principals, and superintendents. I can do no more than suggest how some elements of the profession feel about the matrix.

We are confronted with similar difficulties in defining the public. One can begin with students, with parents who have students in school, and with adults who do not have students in school. Or, one might use the census occupational categories. Or social class categories. Regardless of how the public is viewed, I suspect some attention must be given to how minority groups feel about the matter. Again, I will do well to report how some segments of the public react to the matrix.

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Perhaps the limitations I suggest in my reporting the acceptability of the matrix to the profession and to the public could be removed or reduced had it been possible to do a complete market survey. There was not time for such a survey nor am I the person to conduct one. I note in passing that to do such a survey would be a demanding task. Not only would the usual problems of population identification and sampling procedures require attention, but there would be the stupendous job of reducing the matrix and its underlying assumptions to understandable terms.

My approach to this assignment included the reading of the matrix, examining two studies of attitudes of persons toward career education, conducting a number of individual interviews and small group conferences with some members of professional groups and some members of public groups, and considering what other persons have written about the problem. Obviously, all of this has been colored by my own perceptions. By way of organization, I will first report some impressions gleaned from the studies and interviews; second, I will present my own concerns about the matrix; and third, I will focus these considerations on the acceptability question.

Some Explorations of the Problem

Since my prior knowledge of career education was cursory in nature, I found it necessary to do some exploring of the problem. I noted that Brickell and Aslanian conducted a survey of Attitudes Toward Career Education[1] in the six field sites (Atlanta, Hackensack, Jefferson County, Los Angeles, Mesa and Pontiac) where the school model is being developed. In each site, the survey included a sample of approximately 500 pupils in grades 4-6, 500 pupils in grades 7-12, 500 parents of pupils in grades 4-6, and 500 parents of pupils in grades 7-12. Responses were also sought from all members of the professional staff. The survey reported the attitudes of the respondents towards a number of questions presumably related to career education.

Pupils in grades 4-6, even though they apparently had limited exposure to career education, expressed positive attitudes toward the questions asked. For instance, 86 percent of them thought that "arithmetic is important to people who work" and 69 percent thought that "students should be taught about jobs in schools." Pupils in grades 7-12 also responded favorably. For example, 71 percent agreed that "every student should have at least one paying job before graduating from the high school."

Professional staff members were more positive in their responses than were the pupils. For instance, 89 percent agreed that "you don't need a college degree to be a success." Conversely, only 11 percent of the staff agreed that "career education is just another fad that will soon be forgotten." Parents, while generally favorable, were not as positive as were staff members. Seventy-four percent of the parents did agree that "most high school graduates are not prepared to enter the business world."

There were some interesting differences among the three groups. For instance, in response to the proposal that high schools grant course credit for work as a dental assistant, 65 percent of the staff agreed, 49 percent of the pupils agreed, and only 39 percent of the parents agreed. Despite these differences, the correlation between the views of high school pupils and parents was .86, between staff and parents .76, and between high school pupils and staff .73. Moreover, it was clear that for each of the three groups - pupils, parents and staff members - there tended to be agreement across the six sites.

With all of this agreement we might be tempted to conclude that there is no problem about acceptability. However, I must point out that the questions raised with students, parents, and staff members did not represent in any complete way the matrix with which we are now dealing. Pupils in grades 4-6 were given 22 rather simple questions and were to respond on a three point scale: yes, no opinion, no. Pupils in grades 7-12, parents, and staff members were given 49 questions and were to respond on a five point Likert-type scale. Even the 49 questions found in the longer instrument do not represent a one to one relationship with the matrix or its underlying assumptions.

What then does the survey tell us? I think that the results indicate that students, parents, and staff members are generally supportive of the notion that students should know something about the world of work, and that the school should have some part in helping them understand and get ready to participate in that world. In short, there is a reservoir of support in the six sites for a school program that pays some attention to the career orientation of students; there is no direct evidence linking the responses of students, parents, and staff to the acceptability of the matrix.

Another study of career education was authorized by the Ohio State Department of Education.[2] During the 1972-73 school year Ohio supported a career development program in 20 school districts for some 123,000 students in grades K through 10 at an average cost of $25.00 per student, at a total cost of $2.8 million. For Ohio, the definition of career education was as follows:

> Career Education is a program designed to provide motivation toward the world of work, orientation to the job opportunities available in our economy, and exploration of occupations in terms of the individual's interests and abilities. It includes preparation for successful entry into and progress in an occupation of his or her choice and retraining or upgrading instruction throughout the worklife of the individual in keeping with his needs and abilities.

Preliminary work in Ohio had evolved into three related programs of career education: career motivation for grades K-6, career orientation for grades 7-8, and career exploration for grades 9-10. In all cases the central concern was how well these emphases had been integrated into the total curriculum. Of the questions raised in the study, the one of direct concern to us was, "Is career education taking place in the classrooms?"

To gather the needed information, panels of experts in career education visited the 20 sites. School administrators, teachers, career education coordinators, and students were interviewed. In addition, panel members observed classroom activities, reviewed documents produced by the districts, and examined materials being used in the programs.

In response to the question noted above, the report provided a summary of findings as shown below:

	Low	Medium	High
Teacher Attitudes Toward Career Development	9-10	7-8	K-6
Teacher Understanding of Career Development	9-10	K-6 7-8	
Teacher Initiative	9-10	7-8	K-6
Curriculum Integration	7-8 9-10	K-6	

It is interesting to note that teacher attitudes were most favorable in grades K-6, less favorable in 7-8, and even less in 9-10. In terms of teacher initiative, K-6 was again high, 7-8 medium, and 9-10 low. The overall conclusion of the report follows:

> ..., career education in Ohio is beginning to take place in the classrooms, especially in grades K-6, but in all grades it appears chiefly as additional activities rather than as fully integrated parts of existing curricula.

The Ohio definition of career education, noted earlier, appears to be more specific and more occupation oriented than at least some of the language in the matrix. The Ohio data were generated by interviewers who were experts in the field of career education. Their own values probably influenced their perceptions of what they heard, hence their findings may run to the optimistic side. The Ohio study suggested some of the elements involved in teacher acceptance of career education. These elements included attitudes, understandings, initiative, and curriculum integration. Even with favorable attitudes and understandings, the problems of integration proved to be difficult. It may be appropriate to note what Thomas Hopkins said about curriculum integration a long time ago, namely that integration takes place in the learner, not in the organization of materials.[3] As with the study of field sites, the Ohio study has some implications for us, but it did not deal with the matrix directly nor with the basic assumptions underlying the matrix.

Beyond these two studies, I explored the acceptability of the matrix in interviews with a number of persons in various university posts, a deputy state superintendent of public instruction, an executive secretary of a state teachers organization, and a superintendent of schools. I noted a ranking of school goals by 15 principals in one school district. I also met with small groups of teachers, students, and businessmen to discuss the matter. Turning to the interviews first, the answers were about as varied as the persons and the positions they held. Four persons, all of them much concerned with instruction, were opposed to the idea of career education and to the matrix in particular. One person was almost completely uninformed about the program and wanted time to think about it. One person was rather non-committal and another was supportive of some aspects of career education but tended to reject the matrix. Two persons, both with responsibilities related to the development of the matrix, were cautious and, at times, perhaps defensive about the examination which the matrix is now undergoing. An overall impression is one of considerable division in the profession.

Fortunately, a group of 15 school principals in a suburban school district had devoted some time to the priority ranking of 18 school goals. Based on weighted scores given by the 15 persons, a composite ranking of goals for the group was obtained. Goals of the highest priority were as follows:

1. Learn to examine and use information
2. Develop good character and self respect
3. Develop skills in reading, writing, speaking, and listening

Tied for number 13 in the list was "gain information needed to make job selections," and last, number 18, was "develop skills to enter a specific field of work." Goals 13 and 18 appear to be related to some of the goals appearing in the matrix. Clearly, they do not rank high with the principals of the school district in question.

I met a group of ten 12th graders, students in a high school located in a middle and lower-middle class section of the city. After explaining my purpose, I asked students to respond individually on a three point scale (agree, not sure. disagree) to 15 of the goal statements given under the 12th grade in the matrix. No statement was checked "agree" by all ten students. Nine of the ten students agreed with statements pertaining to accepting "himself as a unique person" "continual learning is a part of life ," and the "increasing need for flexibility and complexity in his decision making processes ." Only five of the ten students agreed with the statements requiring the student to "use his proficiency in communication skills in simulated career situations," and to "plan for a minimum of three career placement alternatives." Following the written exercise we had a rather spirited discussion about career orientation and preparation. The students took exception to what they thought was a sharp dichotomy between work and college as next steps. At least four of the ten students expected to go to work immediately and also to go to college. In general, these students did not think the school had done enough to help them understand and participate in the world of work. They did not like the mandatory language of the goal statements, but clearly they were not social revolutionaries.

I also conferred with six experienced teachers in a suburban elementary school. After explaining my purpose, I asked them to check 13 goal statements, one for each grade (but not so designated) as to whether or not the goal was appropriate. If appropriate, they were to designate for which grade level. The goal for grade 11 having to do with "interpersonal relationships on the job" was thought appropriate for grades 10-12 by all six teachers. The goal for grade 12 having to do with "interviews, tests, and application forms" was thought appropriate for grades 10-12 by five of the six teachers. For none of the other goals did the judged grade placement of the teachers approximate closely the grade placement in the matrix. Actually, the goal for grade 5 having to do with "properties of tools, equipment, and materials" was judged inappropriate at all levels. Except for the goals for grades 11 and 12, teacher judgment regarding goal placement was quite divergent.

These teachers were concerned with the language, "Infuse career education into all levels of the school curriculum." In their words, "It is not enough to teach how to produce, we must also teach how to think." The teachers also looked upon the 1500 goal statements as completely unworkable. The conference ended with the thought, "We better teach kids how to live with each other or nothing else matters."

To round out these explorations, I discussed excerpts from the matrix with four businessmen convened by the Columbus Chamber of Commerce. It took a few minutes to establish a common vocabulary, but there was no lack of interest. Some members of the group were favorably impressed with the notion that career education is a broader concept than vocational education. On the other hand, the idea that the program could "ensure" employment was seen as unrealistic. All agreed that career concerns were pertinent for the school, but they did not wish them added at the expense of the total program. Somewhat to my surprise, there was a strong emphasis that kids should be able to examine the work ethic and not merely accept it. "People skills" were seen as important to many careers and there was stress on the need for adaptability since jobs for most people, over time, will change. In short, these men saw some strengths in the program, but they had reservations about some of the assumptions undergirding the matrix.

While these excursions have helped me understand the problem, the limitations surrounding the studies and the interviews make the data suggestive only. I would now like to turn to a more fundamental treatment of the matrix, particularly an analysis which reflects my own views of the matter.

A Critique of the Matrix

I have two major concerns about the matrix: the nature of the matrix itself and the apparent assumptions underlying it. I think the matrix is an example of over-reach, over-promise, and over-kill. In my view, over-reach is implied in the fourth "critical concept" on page 12, "the hypothesis that academic and vocational curricula can be united within career education." What this seems to do is make career education the total school program, a concept I must reject. I do not believe that all of education should be utilitarian in nature. There is a world of art, of music, of thought, as well as a world of work. But the matrix is not consistent with respect to this over-reach. On page one we find that the model "will make it possible to infuse career education into all levels and aspects of the school curriculum." In this case, infusion into the total program seems to be intended; in the other case, apparently, career education is to become the total program. In my view infusion will be most difficult. Take-over will be impossible.

Over-promise is caught up in the words on page VII, "The CCEM is a systematic effort to design and implement a new educational strategy that will ensure that upon leaving school students will be prepared for career pursuit whether it involves direct employment or continuing education." In my view, the school can help prepare some people for occupational pursuits. I see no way by which the outcome can be guaranteed for all persons. I have an even greater problem with the ensuring of employment. I tend to agree with Ginzberg who points out that:

> There are too many other forces at work: one's family connections, where one happens to live, the job market, one's friends, one's personality. A whole set of factors other than schooling come into play. So I think I can say that the disappointed interveners probably exaggerate their influence because they underestimate the power of the institutions in existence.[4]

We come now to over-kill. The matrix begins modestly enough with eight elements. These elements are soon divided into 32 themes, and these themes when mulitplied by 13 grade levels become 416 cells. But for each of these cells there are usually several goals, hence we arrive at something like 1500 goal statements. True, many of these goal statements are repetitive and overlapping. For instance, I found under economic awareness, theme 18, grade 9, this goal statement, "The student will become aware of economic macro-systems." I also found very similar goal statements under the same theme for grades 10,11, and 12. Even more repetitive was a goal statement under career awareness, theme 15, first encountered in grade 4, "The student will recognize the relationships of careers and associated life-styles." A similar goal statement appeared under theme 15 for grades 5, 6,7,8,9,10,11, and 12. Apparently, writers of the matrix were much preoccupied with life style. Clearly, there is no way by which the goal statements can be made specific to each of the grade levels. More serious is the impossible task of dealing with 1500 goal statements in any educational program. The generation of themes, cells, and items seems to have become a game, perhaps satisfying to the developers, but completely unworkable to teachers.

Concerned as I am about the over-reach, over-promise, and over-kill aspects of the matrix, I have even greater concern about the assumptions which appear to underlie the matrix. I find that a similar position has been enunciated by Nash and Agne:

> What disturbs us most about the career education movement is the number of key assumptions left unexamined. Nowhere in an exhaustive review of the literature have we discovered a single word of caution or criticism concerning the possible misuses of the career education concept. Nowhere have we found an analysis of the ideological premises underlying career education proposals.[5]

What the matrix seems to suggest is that our industrial system and the work arrangements in it are givens. The system itself is not to be questioned. Rather, persons are to be prepared to plug into it. Moreover, the world of work seems to constitute the whole of life. Apparently, there is no place for the world of leisure, the world of aesthetics, or the world of thought. In spite of my work-ethic background, I reject an implied definition of life as centered completely in the work situation.

The matrix also implies that the school make preparation for work its central thrust. The implication that education is to be completely utilitarian in nature is not acceptable. I believe the school must provide students with skill in the tools of learning - reading, writing, and numbers - and that the school must also help all who attend examine more thoughtfully than they might otherwise the issues which confront a free people. A grasp of the tools of learning and problem solving capabilities are useful in many occupations, but it does not follow that these purposes should be perverted in the name of career education.

There is also an underlying assumption in the matrix about the nature of learning. For instance, I noted the scope and sequence statement for each of the grade levels on pages 38-40. For kindergarten there were the words, "following directions;" for grade 1, "following oral instructions;" for grade 3, "task directions;" for grade 4, "following directions;" for grade 5, "task completion;" for grade 6, "preferred tasks;" and for grade 7, "directing and being directed." Learning, as visualized by the matrix, is a matter of direction; there is almost no mention of learning as a matter of discovery. Apparently, students are to learn to take directions in school so that they will be able to take directions when they get on the job. Important as taking directions may be to both school and work, such activity cannot become the mainspring of learning.

There is also an underlying assumption in the matrix about the role of the teacher. Seemingly, teachers, like students, are to accept directions from others. Curriculum makers, perhaps at the national level, will decide what is to be taught and teachers will be told to teach it. There seems to be no place for the teacher as a wise adult, as a diagnostician, as a program planner, as an arranger of the environment, or even as a warm person. While many teachers may not perform all of these functions with great skill, this does not seem to be justification for making all teachers robots.

In sum, the assumptions underlying the matrix having to do with a view of the world, with the purpose of the school, with the conception of learning, and with the role of the teacher are unacceptable to me.

Acceptable or Not

We return now to the basic assignment, the acceptability of the matrix to the profession and the public. Apparently, when Commissioner Marland first broached the idea to the chief state school officers they endorsed it unanimously. Perhaps, as Howard Howe has pointed out, they had not yet considered its full implications. Howe's words follow:

> Now comes a broad, new concept that, if followed to its logical conclusion, would revolutionize the curriculum, require expensive retraining of teachers, incur the wrath of traditionally minded parents of college-bound youngsters, reawaken the basic education advocates who were so vocal in the Rickover period, arouse the suspicions of minority groups, and generally make the lives of school superintendents and chief state school officers vastly more complex than they already are. Career education, if acted upon vigorously, will cost more money and disturb more people than you and I can imagine.[6]

Let us turn to the probable responses of teachers, students, and parents. Will teachers implement the matrix? I have no firm evidence. We do know that teachers in the six field sites were favorably disposed to career education as reflected in the questions included in the survey. We also know that some Ohio teachers, particularly those in grades K-6, attempted to implement the experimental career education program as it was defined in that state. The teachers with whom I conferred had many reservations about the language and implications of the matrix.

My judgment is that some teachers would attempt to implement the matrix, and many would not. Elementary teachers may be more open to the program than secondary teachers, as has been the case with some other curriculum innovations. Teachers who feel the need for outside direction would respond more favorably to the program than teachers who wish to run their own ship. Vocational education teachers would find the program more compatible than teachers trained in other fields. I suspect that most teachers, particularly as they come to understand more fully the program mapped by the matrix and the underlying assumptions of the program, would disregard the matrix, as they have many other curriculum enthusiasms.

Will students find the program projected by the matrix acceptable? Again, there is little evidence. Students in the six sites were generally favorable to career education as reflected in the survey questions. The 12th grade students with whom I conferred found a sample of program goals taken from the matrix rather vague. At the same time they said their high schools had not done well in orienting them to career possibilities and demands. Many of them thought the school should do more about vocational education but they did not want the career emphasis to become the whole program. Student acceptability, it seems to me, is greatly dependent upon the skill and imagination with which the program is presented by the teacher. A career program, well presented, would probably be acceptable to many students, particularly those with average and below average ability. Very bright students might label the program "Mickey Mouse." For them the whole world of thought, both mainstream and counterculture, is their bill of fare.

Will parents and other adults support the program suggested by the matrix? Again, data are limited. Of some significance is a recent Gallup Poll in which 44 percent of the respondents said they wanted their children to have an education in order to get better jobs.[7] A former Governor of Ohio, who was and is a great promoter of vocational education, would, I suspect, find the program most acceptable. Perhaps other political and business figures would also support the program, at least for other children if not their own. The program has many "Middle America" characteristics. It builds on the work ethic. It assumes, as noted above, that the industrial situation and the work place are givens. It stresses the need students have to get prepared to "plug in." The program supports the status quo and does not suggest that present conditions might be subject to scrutiny. The business men with whom I conferred may have been an atypical group. They saw a place for career concerns in the school but they did not want those concerns to become the total program.

Not all parents appear to be supportive of the program. Even in the site studies parents were less favorable to the questions raised than were teachers and students. I suspect that many parents would, in time, recognize in career education, as they have in vocational education, an attempt to divide students into work and college bound streams and they would, in many cases, reject the work destination imposed on their children by the school. Parents in minority groups who have children that may not show up well in a typical school regimen would, I think, become very sensitive to this issue.

In sum, I see the profession much divided on the acceptability of the program projected by the matrix with most teachers likely to ignore it. I see students who experience good teaching in the program finding much of it acceptable. But since relatively few teachers are apt to accept and effectively implement the program, not many students will likely have the option of accepting or rejecting it. As to parents and the public generally, I think the reaction may be mixed, with many parents rejecting the program once its full import is understood.

I do not paint a bright picture. Obviously, my assessment is based on fragmentary data and is influenced by my own convictions. However, since I believe that the school should play a part in career concerns, let me suggest some modifications in the matrix which might make it more acceptable. In the first place, what I called over-reach should be corrected. Instead of career education attempting to take over both academic and vocational education, career education might be defined more precisely to include only those parts of the total program which deal with career awareness and career preparation. This would assume the existence of other main threads in the total school program.

Second, I suggest that the developers of the matrix do something about over-promise. The school can probably help some students get ready for the work world; the school cannot "ensure" a place for all. There are just too many other variables affecting the employment situation.

Third, I suggest that the over-kill be corrected. Thirteen grade level differentiations seem quite impossible. There can be little distinction between a goal statement for grade 1 and grade 2. Perhaps, a division of K-3, 4-6, 7-9, and 10-12 would be more realistic. Also, if the effort were confined to a more restricted definition of career education, at least half of the 8 elements and half of the 32 themes could be dropped. Instead then, of having 13 grade levels times 32 themes, a total of 416 cells, there would be 4 grade levels times 16, or 64 cells. Obviously, goal statements could be greatly reduced and might become manageable in terms of unit preparation, teaching procedures, and evaluation.

A more specific and a more modest approach would at least modify the implied basic assumptions underlying the matrix to which I and many others take exception. No longer would there be the assumption that the world of work is the total world. Nor the assumption that the total purpose of the school is that of preparation for the world of work. If learning is still seen as direction of the student, such an approach might apply to only part of the program. Also, with these modifications at least the way would be open for many teachers to do more about diagnosis of individual needs, program planning, and the establishment of warm relationships with students. Only with modifications such as these can the matrix, in my view, become acceptable to the profession and the public.

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A Review of Developmental Program Goals For The Comprehensive Career Education Model

CRITICAL VANTAGE POINT: FUTURE RELEVANCE

Scott Greer

Given the subject, "Future Relevance," I could write well if I had a million words or so, or if I had a paragraph. Ten to fifteen pages seem constraining. Nevertheless.

Let us look first at what is likely to happen in the short-term future--let's say the 13 years (multiplied by 2 = 26 years)--that the scheme is to be applied in. What will happen to the society and what kind of fit will there be between these youngsters whom we imagine and that kind of world? Let us look at the projected world, the projected program (assuming it works) and the consequences.

First, we can expect a continual increase in the symbol-using, people manipulating, service oriented work-force. Our technology becomes more simple and effective as our science becomes more complex and sophisticated. As long as we have access to vast supplies of fossil fuels and can substiute them for human sinews, we will continue to develop capital-intensive ways of exploiting the world for human purposes while multiplying human services. This assumes the present political economy, in which anything goes if it is profitable.

Second, we can expect a continuing increase in the number, size and power of bureaucratic groups. These groups will be corporate, in the sense that they will be bounded, formal role systems, embracing less than the whole of the society and contending for privilege within the society. These corporate groups we have with us already, including some of them represented here today. They are inevitable if we accept Weber's argument: Large-scale society requires coordination of behavior over vast reaches of space and time (and I might add, tedium).

If we are to have a society of bureaucratic service and control personnel, staff and line, we will have a society of certificates. The "diploma curtain," as Peter Drucker has dubbed it, will be of great significance for the society and for the individual. We can expect a job to be vitally related to a dossier and, in turn, to be vitally related to one's life-chances, marriage chances, residence, life-expectancy, and for all I know, goodness, truth, and beauty. In short the B.A. is not dead, nor are its senior and collateral relations.

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Thus, privilege in the future will not be very different from what we know; it will be based upon the degree route, and that is exactly what we are given in the document we are considering today. The model is a good, logical statement of what is generally believed. It departs in some ways from the decalogue and does so in good ways. Thus, I like (1) the notion that people can be taught conceptual thinking early and can therefore develop great power to generalize which (2) gives them great flexibility in handling a wide range of contingencies in the future and (3) allows tentative solutions which are conducive to (4) future growth.

However, we might ask exactly what kind of product we can expect from this kind of regimen. To begin with, it does resemble the prediction of that contemporary sage, David Riesman: We have the other-directed person here, and with no apology. The homonculus who emerges looks very much like a good union man in a mass industry where not much happens outside the mechanical goods-flow; he looks like the very likable and efficient public servant; he looks, above all, like the very sucessful public school teacher. I suspect Delphi does, indeed, give you back Delphi.

I remember a very sucessful business man telling a conference of academics why you pay a Ph. D. more than a B.A. for the same job, one which either can do. "If any man will spend seven years beyond what the law requires in a school, he will make me a good and faithful servant." In short, I think we are looking at a program which will produce good and faithful servants. (God knows, there are few enough of them in the world.)

However, I find that the program is weak in certain important respects. I don't think it will really tell a neophyte how to make it or, failing that, how to make out. I do believe that if we accept the premises of the technocratic bureaucracy, the white collar system as I have outlined it, then we should be quite candid in what makes the system work, and what yields a job and career within it. Let me indicate some of the things which a realistic programmed education should at least alert the neophyte to, allowing him to make a choice between moral success (solo) or success within the system:

1) A basic assumption of all bureaucracies is that the preservation of the control system takes precedence over any objective output of the system. Almarick argues this for Soviet Russia, Heilbronner for capitalist America. Many things follow from this, but it can be reduced to the individual case.

   A basic assumption of all bureaucrats is that the preservation of their own place in the role system takes precedence over all objectives of the system. This is know as P.Y.A. -- or, "Protect your assets".

These two basic laws come together in a general axiom: Any continuing formal organization must develop a means of protecting the inept. Their presence is the earnest for the security of the remaining labor force, and they improve morale by showing that you can't fail. Every youngster entering the bureaucratic techno-state should be aware, not of his moral duty to the inept, but of the reason for the principle. (Even Hilter was unsuccessful in doing away with the inept in Germany, though everybody applauded when he did away with the apt- e.g., Jews, Socialists, Communists, and the intellectuals.)

2) A second major principle, which is not, I think, clearly evident in the curriculum for living in a bureaucreatic society, is this: Unofficial rewards are not only inevitable -- they are what makes the mare go. As Melville Dalton argues, there is a good deal of error in a reward system that treats categories of roles and ignores individual contributions. If you want those contributions, then you will have to work out ways of rewarding them. All organizations do. This is known as graft, corruption or, more gently, favoritism. It is a good thing to know about because(1) you may cash in or(2) you need not get upset when someone else, smarter, prettier, or just harder-working than you, gets some.

3) Any neophyte in this society needs to know that promotion is not usually a result of what grade you make on a test. In short, as sociologists say, "non-universal" criteria frequently determine whether or not you make it. Now there are a number of reasons for this: Everett Hughs, in discussing the French Canadians in Quebec industry, emphasizes trust and the degree to which we confer trust because people look to be very like us. This is a matter which often creates great conflict for uninformed people: They may go on the warpath without ever understanding the problem. Certainly in our career education we want them at least to understand what the hell is killing them.

4) This brings up a very important area which our neophyte should be aware of: the role system. Age, sex, ethnicity, and education are important for him in a way which the "model" underplays. It is a peculiar aspect of this model that the

neophyte is always known as "He." I assume "he" is also young, healthy, white, and middle-class. Now I do believe there should be more concern for the probability that he will not be a "he "young" (not forever at least), "white." or "middle-class." In which case, he needs to know about the importance of sex, age, class, and color in the world of work. Each can work for you or against you. How to do it is the key thing: Women and **men** always operate in a world in which the dimension of sexual attractiveness is a factor. I see little concern for this in the model. The same goes for the other dimensions of social differentiation. The only word I get from the model is "be kind to different sorts; they also serve." This is damned poor preparation for a situation in which you may get jim-crowed for being male or female, black or white, working-class or middle-class, young or old.

5) Finally, though I have barely scratched the surface, I want to remind you of the importance of corporate groups in this society. They control jobs, protect their assets, and indeed organize privilege. Take the Rockefellers and Katanga. Take the labor unions. I know a young black man in Illinois who was a superb student of printing in a fine vocational high school. Wrong? Wrong; he loved it and made nothing but distinguished grades. He applied to the local newspaper and was turned down because of the labor union. Later, when the heat was on, the paper checked out its personnel files and discovered a black applicant. They hired him as a reporter, waiving the requirement that he have a B.A., and sent him to a local rich boy's college (Lake Forest) where he is earning a degree while working as a remarkable young journalist. His name is Hassan Haakim.

Now the moral of this story is simple but repeated. As a young black printer, Hassan was frozen out of the trade he liked best. He made do, going off to college. He came back, joined the black movement and sponsored an arts center in the black neighborhood of his town. The same black movement put pressure on the newspaper, and as a member of a corporate group, he was hired at a level which many would put above that of a printer. Further, not having the certificate, he then got the newspaper to pay for it.

These are matters which our young people who are facing the corporate technocratic bureaucracy need to know about. How are we to teach them?

As of now, we use "on-the-job training." We can continue to preserve our hypocrisy, a compliment to virtue, if we choose. It goes against the stated aims of the model, but it agrees with the implicit methods of the model. Or we can try wising them up early, with predictable difficulties for a generation of school teachers who are the products of the system and who, indeed, if I understand the Delphi model, created our present subject matter.

Then too, I could not help wondering as I read throught the matrix of desired outcomes, how all of this was to be taught and by whom. I had the terrible feeling that we were dealing with a system within which the docile taught docility, but a competitive docility. Now this fits the Almarick model of Soviet bureaucracy -- it has all the faults of collectivism, but few of the virtues. Yet it does go well with Riesman's notion of the other-directed society, the world of get-along.

But I recently read Urie Bronfenbrenner's comparative study of education in the USA and the USSR, and I was brought up short. What is there going on here in this system which (1) teaches conformism but (2) has little place for the collective good, the public interest, the human race? There is little that is really other-regarding, there is little concern here for social warmth, protection of others, for plain communion. It is a matrix which perpetuates grade competition and lukewarm tolerance with, I am afraid, Devil take the hindmost.

What does this matrix tell us about failure? As the society becomes increasingly "middle-classicized," organized in privileged groups, what of those who get left out? How do you dignify all labor, when much of it is merely unpleasant drudgery which nobody would do by choice and nobody honors? As the white-collar bureaucracy and the well-organized labor unions monopolize privilege, what of the remaining underdogs?

I would suugest that one of the most glaring omissions in this scenario is educating our young people for poverty. What are they to do about unemployment, about jobs that pay less than welfare? How do you get on welfare, where is the best place to do so? Is the army preferable to welfare? What poverty career leads to the best old age pension? At what point is it preferable to emigrate, and if so to what place? These matters, which will be increasingly relevant to those on the other side of the degree curtain in a certificated society, are hardly touched upon in the matrix.

And finally, I want to question, without having any answer the enormous burden of self-awareness built into this model. First, I do believe that our people lack, for the most part, the ego strength to withstand knowledge of the full force of social change. "Future shock" is a fancy name for culture lag; all cultures lag and probably must. I have the impression that this is only marginally important in the matrix. I might ask, where is the character that withstands the winds of doctrine, the tides of change? Are we to continue an education which increases man's knowledge, without increasing his wisdom -- with the outcome Goethe predicted?

Big questions, no answers. I am sorry to be so critical of an enterprise I regard as so important. But this country is exciting because it asks all the hard questions; it is scary because it seldom has any notion of how big they are, how deeply they are rooted in the very nature of the human, American soul.